ANCIENT INDIA AND GREECE

A STUDY OF THEIR CULTURAL CONTACTS

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To my Guru
Dr. T.G. Mainkar
With profound gratefulness

INTRODUCTION

I am very happy to introduce this study of the 'Ancient India and Greece—A Study of their Cultural Contacts' by Dr. (Mrs.) Nalinee M. Chapekar, to the students of ancient culture. Dr. (Mrs) Chapekar has a very sound knowledge of Sanskrit, a subject in which she holds a Doctorate degree and also of Ancient Indian History and Culture, a subject in which she has passed her M.A. examination of the University of Bombay in First Class. This gives her a rare advantage in that she is able to understand Indian Culture as revealed by the sources in original.

In this servey of hers she has attempted to make an assessment of the depth and value of the cultural contacts between Greece and India, countries with remarkable cultural history. This highly interesting as well as, important problem has received treatment from many competent hands, who hold widely divergent views in the matter. Dr. (Mrs.) Chapekar has done well in focusing her attention on these divergent views and in attempting to arrive at a plausible conclusion which should, on the whole, be acceptable to critical minds. It is customary either to assert borrowings or reject influences. Prejudices also, not rarely, colour views. But on the whole, Dr. (Mrs.) Chapekar has tried to adopt as far as possible a balanced attitude, and to discuss the matter in a dispassionate manner. She has studied these contacts in the different fields of Political history, Arts, Sciences, Literature, Religion and Philosophy in her different chapters. She has frankly admitted the Greek influence in Indian sciences of medicine and surgery, Arts, Architecture and she has also denied the same where it has been suspected by many, as for instance in the field of literature and philosophy. This small survey tries to cover the entire kernel of two civilizations and would prove

very useful as an introduction to the subject to those interested in Ancient Indian History.

I would wish Dr. (Mrs.) Chapekar to continue her studies in Ancient Indian History and Culture with greater vigour and consistency and produce similar dissertations in times to come. I wish her success in her ventures.

—T.G. Mainkar
Bhandarkar Professor of Sanskrit &
Head of the Department of Sanskrit,
University of Bombay.

PREFACE

While studying Ancient Indian Culture at the Post-graduate level I was very much interested in the problem of the relations between the Indian Civilization and the Greek Civilization. The Indian Civilization with remarkable achievement to it's credit in all the different fields of human activities has become richer because of it's contacts with the foreigners. With these foreigners there was a natural give and take. In the historical period the Greeks were the first foreigners to come to India. Hence an effort is made here to assess and evaluate this cultural impact of the Greeks on the Indians.

I very well know my own limitations which are indeed very sever. I have ventured to undertake this project being encouraged by the works of KEITH, TURN, BANNERJEE and JAIRAJBHOY. To all these and other scholars, whom I have consulted freely, I owe a debt of gratitude, which I gladly acknowledge. I am greateful to Mr. S. Balwant of Messrs Ajanta Books International, who have taken keen interest in my dissertation and have brought it out in so nice a form. To him I owe my best thanks.

—Nalinee M. Chapekar

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INTRODUCTION

INDIA AND GREECE are two very important countries from the point of view of history, culture and civilization of the world. Each of these countries has a glorious past, each had influenced the other, and each had a considerable independent development of its own. Yet the question of the inter-relation between these two countries themselves is very intriguing one. What was the precise nature of this relation ? Was there any give-and-take, borrowing and mutual influencing ? The present monograph is an effort to understand the nature of this cultural communication and relation between these two countries.

In this context one has to remember that the cultural relations between these two countries are to be understood on two different levels : the Indo-Germanic and the Indo-Greek. The Hellenic people, the Indo-Iranians and the Indo-Aryans were the branches of one and the same Aryan race and this is responsible for a community of ideas and similarity of spiritual aspirations that seem to bind these three branches together inspite of their political distictions. Havell in this context remarks, 'The mutual relationship between East and West started even in the sixth or seventh century B.C. While Mahāvīra and Gautama were propounding their theories of the universe in the debating halls of Magadha, Heracletus of of Ephesus was discoursing on elemental matter and the nature of the soul in the proticoes of Indian temples. About the same time Pythagoras of Sames preached the doctrine of

the One in Many and founded a religious *saṅgha* in which strict abstinence from animal food was enforced. The cities of Ionia and not Athens and Sparta were then the centres of Hellenic culture and the antithesis implied in the modern use of the terms East and West had no application to the international conditions of that period'.[1] The fact that the Indo-Germanic were the common ancestors of the Greek and Indians, seems to play a vital part in the development of these two civilizations.

But the historical fact is that Alexander the Great brought Greece into actual contact with India in 326 B.C. After him flourished Indo-Greek states in Bactria, Punjab, Sind and there was natural contact between the Greeks and the Indians. The Indo-Greek kings had close relations with the Mauryas, not very friendly relations with the Śungas and their history ends with the rise of the Guptas. This Indo-Greek period may roughly be described as period extending from 326 B.C. to 400 A.D. During this period there must have been a give-and-take in cultural matters between the Greeks and the Indians. Smith, Weber and Benfey are of the view that it was India that borrowed. Even a recent writer like Jairazbhoy is tempted to write, 'In each case she (India) was the recipient rather than the donor'.[2] One is inclined to say that this a somewhat sweeping judgement. Keith, Havell Winternit and Thibaut seem to be right when they observe that with an advanced culture India was not always the borrower. With the successive waves of foreigners, India came into contact with many civilizations and assimilated in an ingeneous manner the acceptable foreign elements maintaining its homogenity. Not only this but India Indianised these foreigners.

The invasion of Alexander the Great in 326 B.C. was a military conquest. He had no intentions of a cultural con-

quest. He left back his satraps to rule over the provinces conquered and this succeeded only in creating the Indo-Greek states. The Greek population of these states and the Indians must have mixed at all levels and, naturally, there must have been a mutual impact on the different aspects of their life, politics, the arts, sciences, literature, religion and philosophy. In the pages that follow, a description as well as an evaluation of this impact is attempted.

1

Politics

THE ONLY NOTEWORTHY effect of the invasion of Alexander the Great was that it opened up communication between Greece and India and paved the way for a more intimate intercourse between the two. It would be hazardous to assert that this invasion left any permanent effects on life in India, for Alexander invaded, conquered and left. He, however, appointed satraps in India and returned home. The appointment of satraps created small Greek states in north-west India.

Among the Greek kings who could be said to have ruled over a part of India[1] Seleucus Nikator is the first king after Alexander the Great. It was a reaction against Alexander's invasion that resulted in the rise of Chandragupta Maurya. The establishment of the Maurya empire naturally checked an extension of the Greek political power. After his defeat somewhere in Punjab, Seleucus made a treaty of peace with Chandragupta Maurya. Seleucus Nikator thought it wise to have matrimonial and friendly relations with Chandragupta Maurya (c. 321—298 B.C.). At about 206 B.C., Antiochos III was a Greek ruler and he had under his sway for more than

1 Seleucus ruled over Kabul, Kandahar, Afghanistan which were part of ancient India.

a century some Indian provinces, particularly Punjab and adjacent territories. This contact of Seleucus Nikator and Antiochos III with India can be described as contact between Selcucid empire and India but the Selcucid empire in Bactria soon fell into pieces, on account of the activities of Diodotus I (c. 250 to 230 B.C.) and II (c. 230 to 220 B.C.). Diodotus II was killed by Euthydemon (c. 220 to 192 B.C.) the father of Demetrius, and Antiochos III who was struggling against Euthydemon, could not remain in India for long even after crossing the Hindukush in about 206 B.C. Ethydemon caused the kingdom of Bactria to rise in power and his son Demetrius crossed the Hindukush in 183 B.C. It is very likely that this Demetrius is the Yavana General mentioned in the *Mahābhāṣya* of Patañjali (c. 2nd century B.C.)[2], and the *Yuga-Purāṇa* of the *Garga Saṁhitā*[3]. According to these references Demetrius overran the Pañcāl country and had besieged Madhvamikā and Sāketa. While Demetrius was busy with his conquest in India, there arose trouble at home in Bactria for Euratides, who was a General and first cousin of Antiochos IV[4], successfully carried out a revolt and occupied the throne in 185 B.C. Demetrius was unable to dislodge his rival from his position and had to remain contended with his conquest in Punjab and Sind. It is perhaps this fact that is

2 Commenting on *anadyatane laṅ* (Pāṇini III.2.111) Patañjali gives the following sentences as the instances of imperfect tense: *aruṇad yavanaḥ sāketam. arunaḍ yavano madhvamikām.* According to some scholars the *yavana* referred to by Patañjali is Menander. But taking into consideration the time period ascribed to Patañjali as second century B.C. this view does not seem acceptable.

3 Garga-Saṁhitā, JBORAS vol. XIV, 1928, p. 402 l. 22-23.

tataḥ sāketam ākramya
pañcālān mathurām tathā /
yavanaḥ duṣṭavikrāntaḥ
prapaśyanti kusumadhajam //

4 TARN, *The Greeks in Bactria and India*, pp. 196-197.

responsible for Demetrius being known in tradition as *Rex Indorum*,i.e., king of the Indians. We also learn that Demetrius founded a town Euthedemia in memory of his father. The town of Dattamitra among the Sauviras also perhaps owes its origin to Dattamitra or Demetrius.[5] Eukratides, the king of Bactria (c. 165-160 B.C.) conquered India, became Lord of a thousand cities. He founded the city of Eukratideia, bearing his own name. Thus there arose two separate principalities in the East ruled by the rival houses led by Demétrius and Eukratides, the former house of Demetrius held Eastern Punjab with its capital at Ethedemia or Sakala, Sind and the adjoining regions, and the other house of Eukratides was in possession of Bactria, Kabul valley, Gandhara and Western Punjab.

Among the descendants of Euthydemos mention may be made of Agathosles, Pantaleon, and Antimachus. Apollodotus (c. 175 to 160 B.C.) and Menader (c. 158 to 138 B.C.) also belonged to this line. Menander is perhaps the most interesting royal figure in Indo-Greek history. His popularity with the Indians is noteworthy and he has been spoken of very highly in the Indian literature. He patronised Buddhism and appears as hero in a Buddhistic work, *Milinda-pañhya.* Eukratides was succeeded by Heliocles (c. 170 to 135 B.C.) and this latter was overpowered by the Śakas. Among the Greek rulers like Antiochos ruling over frontier regions the last was Hermeous who flourished in second quarter of first century A.D. He was overpowered by the Kuṣāṇas and his overthrow marks the end of Greek royal houses in India. From the study of coins, M.V.D. Mohan maintains[6] 'the existence of some 37 Indo-Greek rulers, including two queens, Agatho-

5 Dattamitra, referred to in Mahābhārata (*Ādi Parvan* 138.21-23) is identified with Demetrius.

6 *The North-West India*, pp. 67-68.

cleia and Calliope'. These 37 rulers belonged to two mutually hostile houses, namely that of Euthydemus and that of Ekratides. After second century A.D. there were no Greek kings in India. This is the brief account of the Greek states and the kings who had political connections with Gandhara, Punjab, Sind and the regions round about.

The Indo-Greek Kings and the Mauryas

These Greek kings had close and friendly political relations with their contemporary Indian kings. Thus Seleucus Nikator, king of Bactria, it is generally believed, gave his daughter in marriage to Chandragupta Maurya. Megathenes was an ambassador from Seleucus Nikator at the court of Chandragupta Maurya. By way of courtesy Chandragupta also sent through his own envoy some strange Indian drugs, as Strabo informs us. Chandragupta's son Bindusar had in his court a Greek envoy Deimachus of Plataca sent by Antiochus I son of Seleucus. In the third generation relations with the Yavanas of the Greek status of Western Asia are too well-known. It is held that Ashoka's description of himself as *devānām piya piyadasi* is an echo of the deification of kings current among Alexander's successors in Hellenistic country. It is also suggested by Tarn that Ashoka was grandson of Seleucus. In the Rock Edicts of Ashoka we have the first Indian authentic record of foreign contacts. In his 13th Rock Edict at Kalsi, Ashoka states that he was in diplomatic contact with Antiyoga, Tulamaya, Maka, Antekina and Alikhyasudala who have been identified as Antiochus II, Theos of Syria (c. 260-246 B.C.), Ptolemy II, Philadelphus of Egypt (c. 285-247 B.C.), Magas, king of Cyrene (c. 300-258 B.C.) and Antigonos Conatas of Macedonia (c. 278-239 B.C.).

The Indo-Greek Kings and the Sungas

The Maurayas were followed by the Śuṅgas who ruled for 112 years. Puṣyamitra Śuṅga, the founder of the Śuṅga dynasty, was first the commander-in-chief of king Bṛihadratha, the last Mauryan ruler of Sāketa, whom he killed at a review of the army. Ascending the throne in 184 B.C., he won reputation by his complete subjugation of the Greeks.[7] He fought with Demetrius and compelled him to retreat from Mathura and crossing the Indus chased the fleeting Yavanas. At this very time there was a successful revolt against Demetrius in Bactria, under the leadership of Eukratides. Possibly Eukratides led this revolt because of the support from Puṣyamitra. In this connection M.V.D. Mohan writes, 'The news of Greek disasters in India must have reached Bactria to give ideas to an ambitious adventurer Eukratides by name. It is quite probable that Eukratides, or his agent, may have met Puṣyamitra near Taxila, and he may have planned his coup in collaboration with the latter.[8]

Puṣyamitra's campaigns against the Greeks continued till Demetrius was killed and M.V.D. Mohan hints that Puṣyamitra was responsible for the end of Demetrius (c. 175 B.C.).[9]

The wars against the Śuṅgas cost the Euthydemids heavily. Demetrius II, Pantaleon, Antimachus and Agathocles fell one after the other in quick succession. Demetrian terri-

7 Puṣyamitra is described in the Mahābhārata as :
satatam kampayāmāsa yavanān eka eva yaḥ /
balapauruṣasampannān kṛtāstrān amitaujasaḥ /
yathāsurān kālakeyān devo vajradharastathā //
(*Vanaparvan* 4.23).

8 *The North-West India*, p. 155.

9 *Ibid*, pp. 156-157.

tory shrank to the Sindhu-Sauvīra region and possibly a small chunk in Afghanistan. After these events the crown of thorns fell on the head of Apollodotus, who fell later at the hands of Vasumitra Śuṅga, the grandson of Puṣyamitra. This fight of Vasumitra with the Greeks is described by Kālidāsa in his *Mālavikāgnimitra*[10], in

> *....senāpatiḥ puṣyamitraḥ...anudarśayati...(aśvaḥ)*
> *sindhor dakṣina-rodhasi caran aśvānikena yavanānām*
> *prāthitaḥ* /...
> *tataḥ parān parājitya vasumitreṇa dhanvinā* /
> *prasahya hriyamāṇo me vājirājo nivartitaḥ* //
> —*Act I*, 15.

In the north-west the Śuṅga empire included the province of Sauvīra of Euthedemid principality and Kapiśa of the kingdom of Heleiocles. The Besnagar Garuda Pillar inscription records that Bhaga or Bhagavata, the 5th Śuṅga king, maintained diplomatic relations with Antialkidas, the the Greek ruler of Taxila.

At the end of king Agnimitras's reign of eight years Prince Vijayamitra Śuṅga was ruling independently in the western Gandhara. He had a battle with Menander and after an unfavourable conclusion of the battle, had to acknowledge suzerainty of Menander. The Rāvi hereafter became more or less the permanent boundary between the Indo-Greek and Śuṅga empires. It remained so for about half a century till both the powers altogether disappeared from the political scene. Constant friction between the two, however, must have continued and this state of affairs may

10 Here in Kālidāsa, and everywhere Puṣyamitra is designated the simple epithet *senāpati* (General). This indicates, as M.V.D. Mohan mentions (*ibid* p. 173) that he was particularly proud of his military achivements.

explain Plutarch's story that Menander died in camp.[11]

Eukratides of the other Greek dynasty probably had the backing of Puṣyamitra. His links with Puṣyamitra are further suggested by the good relations which his descedants maintained with the Śuṅgas. The Besnagar inscription records the setting up of a Garuḍa Pillar by Heliodorus of Texila, who was an ambassador of Antialkides at the court of Kausiputra Bhāgabhadra. Antialkidas was a descendant of Eukratides and Bhāgabhadra has been listed in the Purāṇas as the 5th Śuṅga king.

It appears that the powerful Śuṅga rulers offered protection to the Eukratidian princes. Helliodorous is possibly acknowledging this fact when he extends the essentially Greek title *Tratar*, i.e., Saviour, to Bhāgabhadra, a title never adopted by Indian kings.[12]

Administration

Such close contacts and friendly relations must have led to a natural influencing in the matter of royal life, life of the people and administration in general. About this influence and its extent, scholars hold absolutely divergent views. According to Tripathi 'neither Megasthenes nor Kauṭilya bears out that there were any Hellenistic signs in the Maurya court'.[13] Jairazbhoy, however, feels that the Indian state organisation of finance as known through Kauṭilya was affected by Hellenistic ideas. According to him following are the points of contact between the administration of Kauṭilya and Hellenistic civil and state institutions.

11 M.V.D. Mohan, *The North-West India*, p. 178.

12 *Ibid*, p. 200.

13 *History of Ancient India*, p. 208.

(1) The lease of mines with payment of fixed rent and percentage output.

(2) The name and function of the financial direction in the *Arthaśāstra* is almost identical to the Ptolemic *dioecetes.*

(3) The planned economy of the Indian land organisation resembles the Ptolemic organisation system.

(4) Monopolies apply to all processes of production and trade excepting in textile and leather, both among the Ptolemies and in the *Arthaśāstra.*

(5) The organisation of the salt trade in India bears a striking detailed resemblance to that in Ptolemic Egypt.

It is also pointed out that the department of foreign affairs at Pāṭaliputra called *astynomoi* by Megasthenes was modelled on the Greek *Proxenoi* especially in the event of the demise of foreigner[14] of administering his estates and transmitting the effects to his heirs.

Prof. K.A. Nilakantha Sastri also holds the same view. He observes that the Mauryan polity was partly a culmination of the indigenous imperialist tradition beginning to take shape under the Mauryas and partly consisted of 'wise borrowings and adaptations from contemporary foreign models, immediately Hellenistic, but ultimately traceable to Achaemenids'. It is in the Greek fashion of Hellenistic monarchies that Kauṭilya invests the king's decree with an independent, supreme overriding authority over other sources of law and

14 *Foreign Influences in Ancient India*, p. 68.

he makes the king owner of the entire soil.[15] In this context it is pertinent to note the remarks of Rostovtzeff that, 'If one believes in the historical character and the early date of the kernel of the *Arthaśāstra* of Kauṭilya and in the radical centralization of Indian government affected by Chandragupta on Hellenistic lines, one may say that Chandragupta did more to Hellenise India than Demetrius and Menander.[16]

Prof. U.N. Ghosal is not prepared to accept any Greek influence on Mauryan polity and tries to refute the views of Nilakantha Sastri and Rostovtzeff. Pointing out the traditional base of Mauryan monarchy right from the Vedic times, Smṛtis and times of the Nandas, Ghosal remarks, 'Ashoka, the last of the great imperial Mauryas was not tempted, notwithstanding the examples of his western predecessors and contemporaries to claim for himself any higher title than the simple title of raja (king) and no greater dignity than the colourless epithet *devānāmpriya* (beloved of the Gods).[17] Ghosal therefore thinkṣ Rostovtzeff as doing violence to the facts of history. He believes in an independent growth of the political and economic organisation and would interpret similarity in the Indian and Hellenistic conception as due to coincidence rather then conscious borrowing.

Trade and Commerce

India's flourishing trade with countries like Mesopotamia, Asia Minor and others goes back to the times of Indus valley civilisations. The export of ebony, woods, peacocks and ivory was very old. The Buddhist *Jātakās* and the Saṅgam

15 *The Age of Nandas and Mauryas*, p. 189.

16 *The Social and Economic History of the Hellenistic World*, pp. 550-551.

17 "*The Alleged Achamenid and Hellenistic Influences Upon the Administration of Maurya Empire*" J.N. Banerjee, vol. 1960, pp. 76-95.

literature contain the references to the merchants going to other countries. Indian vessels were coasting along Gedrosia to Arabia and the Persian Gulf before the time of Alexander. But this is true that the contact with the Greeks gave an impetus to Indian trade and commerce. In the third century under the Mauryas there had been a regular export trade to the Greek West. It has been thought that export of Indian paper began in the period of Greek rule.[18] Tarn also suggests the probable export of Greek girls to India under the Greek rule. He in this connection mentions the reference to Yavana women in the plays of Kālidāsa and in the Periplus lists.[19]

Coinage

The Greek influence in political and administrative matter may perhaps be a matter of doubt but the numismatic evidence is obvious. Prior to the advent of Greeks, punch-marked coins were current in India. The Greeks introduced the practice of using regular coins, properly shaped. The very Greek words for coins *stater* and *drachma* occur in Śaka documents in the forms of *sadera* and *trakhma.* In the Indian literature the Roman *denarius* appears in the form *dīnāra,* the Greek *drachma* in the form *dramma* and *stater* as *statira.* The bilingual coinage, with legends in Greek and Kharoshthi, was continued by Śakas, Parthians and earlier Kuṣāṇas. The coins of Moga, the Śaka ruler, were directly imitated from the coins of Demetrius and Apollodorus. On the silver and copper coins of Śaka kings, Azes I and Azilises, the Greek deities Zeus, Heracles, Pallas and Poseidon appear. Dr. R.G. Bhandarkar has given a detailed analysis of the coins of the kings of different dynasties. He observes that the coins of the Greco-Bactrian kings bear

18 Tarn, *The Greeks in Bactria and India*, p. 370.
19 *Ibid*, p. 374.

either the Greek legend or if the legend is in Prakrit, there are some Greek words in it. As for example in *mahārājasa Apadihatasa philasinasa* the word *apadihatasa* corresponds to *Aniketou* in the Greek legend. On other coins we have Jayadharasa corresponding to *Nikephorou* in the Greek legend, as in *mahārājasa jayadharasa Antialkiasa.* On the coins of Archebius we have *maharajasa dharmikasa Jayadharasa Ardhebiyasa.* On those of others such as Menander we have *Tradarasa* corresponding to the Greek *soteros* as in *maharajasa Tradarasa Menamdrasa.* On some coins we have *Tejamasa Tadarasa* where *tejama* stands for the Greek *Epiphanous* and means brilliant.

Śaka coinage is an imitation of the Greco-Bactrian or Greco-Indian coinage, though there are some emblems peculiar to the Śakas. On the obverse the legend is in Greek letters and on the reverse in Kharoshthi character and in Prakrit language. The Saka kings appropriate the epithet *mahatasa* corresponding to the Greek *Megalou* which is found on the coins of the Greek kings. The coins of Indo-Parthian or Pahlava kings have Greek legends on the obverse and Kharoshthi in the Prākrit dialect as in the case of the Śakas and the Greeks. On some of Gondophares' coins we have the Greek legend *Basileus Basileon Megalou Gundophernou.* Some of his coins do not have Kharoshthi legend at all, but only Greek. Among the coins of Kanishka there is only one legend in Greek letters and Greek language which reads *Basileus Basileon Kanheshkoui, i.e.,* Kanishka, king of kings. The emblems on the reverse are figures of deities from the Greek, Persian and Brahmanic pantheon. By the side of these figures of deities their names also are given in Greek characters.[20]

20 *A Peep into the Early History of India.*

About the royal practices Tripathi remarks that neither Megasthenes nor Kauṭilya bears out that there were any Hellenic signs in the Maurya court. Jairazbhoy however feels that Indian state organization of coins of the early Guptas betray a foreign influence in weights, though the Indian Goddesses and Sanskrit language took place of the Greek deities and Prakrit language.

Though it is clear that coins of latter kings are influenced by the Greek coinage, Banerjee, specifically denies the Greek origin of the art of coinage. He observes, 'The coinage of India in its most primitive forms consisted of small, oblong, roughly rectangular plates of silver, without any impression on the surface but struck to definite standard of weight, viz., 32 ratis or 58½ grains. He then remarks, 'The Indians had their own coinage before the advent of the Greeks for had the Indian waited till the Macedonians came to teach them they would have spared themselves all those manifest efforts at invention and humbly have essayed to copy the perfect coins of Alexander now ready in their hands'.[21] About the Greek language also it could be noted that on the coins of earlier kings from Diodotus to Demetrius, Greek legends only have been employed. After that time, we have usually Greek on one side of the coin only. The Kharoshthi script and Prakrit language were used simultaneously with Greek character and language. Though certain Greek influence is seen on coins it is purely temporary.

Monuments and Calendar

According to Tarn, calendar is the gift of the Greeks. He writes, 'Demetrius of necessity took the Seleucid calendar to India with him and there it gave birth to many other Eras ;

21 *Hellenism in Ancient India*, pp. 109, 112.

kings or dynasties of alien blood might desire to set up Eras of their own, but they were all copies, the *idea* of reckoning time from a date fixed once for all came to India with Greeks.[22]

Jairazbhoy mentions certain minor aspects as evidences of Greek influence. According to him the art of mining was borrowed by the Indians from the Greeks, for the word *suraṅga* in the *Arthaśāstra* is borrowed from Greek word *syrin*. He also suggests that the ideas of town planning given in *Arthaśāstra* are similar to those of Greeks. Again Ashoka's practice of erecting inscribed pillars may have been influenced by a Greek idea. Alexander built lofty memorials of victory which were inscribed and these were the inspiration for the inscribed pillars of Ashoka. In the Indian tradition, there is no antecedent for the *jayastambha*, or victory pillar, although the sacrificial pillar *yūpa* is known in early texts. Further the emblem of a sun disc carved in relief of the so-called Buddhist monuments ultimately originates from Assyria and similarly the so-called Buddhist *triśūla* ornament is patterned on the winged solar disc of Assyria. The nimbus around Kaniṣka's head, and the luminous rays surrounding Vima Kadphises II on his gold pieces are characteristics of deification and must go back ultimately to the coins of Antiochus IV Epiphanes, who has the epithet and the rays surrounding his head.[23]

Conclusion

This brief outline of the Greek contact and influence on the different aspects of political life should suffice to give an idea of the Greek contribution to the rich variety of Indian

22 *The Greeks in Bactria and India*, p. 359.

23 *The Foreign Influence in Ancient India*, pp. 48-58.

culture. The Greeks came as invaders, settled down as rulers and were Indianised. India, always clever in carrying out a synthesis of cultures, assimilated whatever good the Greek had to offer. The Greek kings were proud of calling themselves as followers of Indian religion and culture. Their inscriptions also are mainly in Prakrit and Kharoshthi. India has yielded no Greek inscription. Of the inscriptions dated in the period of Greek rule that of Heliodorus on the Besnagar column is probably the earliest. He proclaims himself as *paramabhāgavata*. He quotes *Mahābhārata* and sets up his record in Brāhmī. Another inscription of the Greek meridarch Theodorus, a Buddhist, is in Kharoshthi. Tarn, therefore, is right in concluding that from about the beginning of the first century B.C. the Greeks were becoming Indianised.[24] Demetrius and Apollodotus were taken up into the *Mahābhārata*, Demetrius under the name of Dattamitra and Apollodotus under the name of Bhagadatta, and except in the extreme East, Greek rule everywhere was overthrown not by any action by Indians but by a new and more numerous body of foreign invaders.

24 *Ibid.*, pp. 388, 376.

2

The Arts

ANCIENT INDIA has given us magnificent sculptures, frescoes and the like and this their art appears to be particularly religious in inspiration. We have images of the founders of the thought like the Buddha and the Jina and mythology connected with them. Themes from Hindu mythology also are carved out on stones at places regarded as holy for one reason or the other. Arts like sculpture, painting, music and dance are very natural to men. It is very possible to trace the origin of these arts to the Indus valley civilisation and the Vedic civilisation. For both these civilisations reveal ample direct and indirect evidence that would make one believe that these arts must have had a natural indigenous development.

India, being a very vast country, divided into different provinces, must have been responsible for the rise of different provincial schools. It is therefore that one can speak of the Mathura school or Bengal school and the like. These types must have been named either after centres at which they developed or after provinces in which they developed. In this context one may refer to the different styles in literature like *Gauḍī*, *Vaidarbhī*, *Pāñchālī* and *Vacchomī*. Something similar must have happened in the field of sculpture, painting

and other arts. The question now arises as to whether the presence of the Greeks in the Indo-Greek states did anything to influence these indigenous arts. It is quite possible that there were Greek artists among the subjects of these Indo-Greek kings and one can imagine the contact of these Greek artists with the artists patronised by the Mauryas because of the close friendly relations of the living monarchs. It is in this context that the Gandhara school of art arrests our attention.

Greco-Buddhistic Gandhara School

It is generally accepted that the Gandhara art is a gift of the Bactrian Greeks.[1] Before any contact with the Greeks Indian artists had produced works of art like the sculptures at Bharhut, Sāñchī and the like no doubt, but the Greeks, it is said, gave new ideas and motifs to the artists in India. Fergusson, Foucher and many others believe that the Gandhara Buddha statues were produced by the Greek artists. Fergusson observes, 'There is no trace of images in the *Vedas* or in the *Smritis.* There is a little trace of any image of the Buddha, Buddhist figures being set up for worship much before the Christian Era. But the earliest, the finest and the most essentially classical figures of the Buddha are to be

1 The Greek origin of the Gandhara art is doubted by some scholars, who ascribe it to the Romans but Fergusson, Grunwedel and Burgess specifically state that it is clearly Greek influence which can be directly traced and 'Roman is only a later form of Greek art'. The Bactrian Greeks carried with them the Grecian sculpture and Grecian architecture and during their supremacy or after their expulsion from Bactria established a school of classical culture in the Peshawar valley. Thus the region is the Peshawar valley and the time is first century B.C. to second century A.D. The subjects are mostly Buddhistic.

found in Gandhara'.[2] Further it is stated that no statue of the Buddha has been found in India earlier than about the Christian era. There are none found at Bodh-gaya, Bharhut, or at Sanchi. In Gandhara monasteries, however, they are very frequent. The statues of the Buddha at Karle and in the Western caves are avowedly insertions of the second or third centuries or later. Before the arrival of the Greeks the Buddha was represented in some symbols like his foot prints or his umbrella or wheel or Bodhi-tree. The representation of the Buddha in human figure was first done by this Greco-Buddhist school.

How this communication between the Greek and the Indian artists must have taken place is explained by Tarn thus : 'Some nameless Greek artist in Gandhara, who had to earn his living, first portrayed the Buddha in the only way he knew of imitating the Apollo type. Thus the *idea* of representing the founder of Buddhism as a man originated not with India but with Greece. It was the one great mark which the Greeks set upon India, and they did it by accident.[3] Fergusson also writes, 'About the beginning of our era Greek art had become a matter of commerce and export and Graeculi travelled in all directions with their wares and models, ready to employ their skill in the service of Gaul, Skythian or Indian kings to provide images for their employers, the different classical orders of architecture, and would teach their pupils how to carve them. It is an imitation of Greek forms with divergencies—not a copy—but the suggestion must have come from those travelling Greek artists—probably Ionians—who were the agents by whom the Gandhara sculptures were inspired and Greek statuary was the model from

2 *History of Indian and Eastern Architecture*, vol. I, p. 222.
3 *The Greeks in Bactria and India*, p. 408.

which the Mahayana pantheon was evolved'.[4] In this manner the travelling Greek artists were responsible for the Greco-Buddhist art in Gandhara.

The Greek kings were patrons of art and therefore patronised these travelling artists. Banerjee draws our attention to the Besnagar and the Girnar inscriptions where there are references to the Greek kings as patrons of arts.[5] The Besnagar inscription runs thus : 'For the sake of Kashi-putra, Bhagabhadra the saviour, the King of Sankassya, King Chandadasa caused the Garuda pillar of Vasudeva, God of Gods, to be made here by Helliodorus, son of Dion, a votary of Bhagavat, a Yona data (*duta ?*—an emissary from the Greeks) of Takshashila who came from the Maharaja Antalkidas'. Thus the inscription records that Greek workmen did work in India at the time of the Bactrian Greeks and might therefore have influenced the native craftsman very considerably. One more peculiar example of Greco-Indian workmanship was discovered by Dr. D.B. Spooner near Peshawar. This was the work of a Greek artist for the inscription on it tells us that it was made by 'Agasilaos, overseer at Kanishka's Vihar in the Sangharame of Mahasena'.[6] Other mention of Yavana workmanship appears to be in the Girnar inscription in Kathiawad which records that the Girnar Lake was 'furnished with conduits by the Yavana Raja Tushashpa for Ashoka.[7] In the various Buddhist caves the names of Yavana donors of sculpture, cisterns, pillars, etc., frequently occur. In the Karle caves some of these inscriptions date from the second century A.D.

4 *The Greeks in Bactria and India*, p. 220.

5 *Hellenism in Ancient India*, pp. 15-18.

6 *JRAS*, 1909, p. 1058.

7 The name Tushashpa according to some scholars, appears as Persian.

and point to the continuance of Greco-Buddhist settlements at quite a late date. Inscriptions Nos. 7 to 10 refer to pillars, the gift of Siladhaya and Dhama, Yavanas from Dhanakataka. In the Junnar caves we have three inscriptions referring to the Greeks, one of them is named Irila, which sounds like a Greek name Euryalus.

In spite of this clear evidence Havell and Coomarswamy deny any such mix-up in Greek and Indian tradition in sculpture. According to them the Greeks did not leave any impression after them. Havell in this context remarks, 'The occupation of India by Greeks who followed Eukratides and Menander was purely a military and commercial matter, and the invaders were swept away, just as the relics of the invasion of Alexander had been swept away without leaving any permanent trace behind them.[8]

Niharanjan Ray observes regarding the Greco-Buddhist Gandhara school of art as follows : 'Figures of the Buddhist pantheon, including that of the Buddha himself, with iconographic marks and attributes of Indian tradition are rendered in terms of identical characters of the Greco-Roman pantheon, sometimes with the moustaches, turban or ornaments added according to current local taste ; their draperies are arranged in the style of Roman *toga.* Indian sages, priests and anchorites in the stories correspond to bearded philosophers and sages of the classical tradition—*yakṣas*, *garuḍas*, *nāgas* and even *vajrapāṇi* with their usual attributes, are conceived and represented in terms of the bearded genii, Atlantes, Bacchants, Zeus, Herakles, Eros, Hermes or Poseidon. Relief composition as a whole, modelling of the facial, and physiognomical features, well-rounded forms and the relation of depth and surface, treatment of drapery, wavy

8 *The History of Aryan rule in India*, p. 63.

treatment of hair, relation balance and distribution of weight of parts of the human frame, certain motifs and patterns etc. all indicate a full and close knowledge of Greco-Roman art'.[9]

This Greco-Buddhist art introduces the representation of the Buddha in human shape, his prototype being Apollo and the sole addition being a nimbus. As for the state of Bodhisattva, it is represented by the figure of an Indian prince in all the splendour of his ornament. It is also in the bas-reliefs of Gandhara that the figures of Buddha and the saints appear seated on a reversed lotus-bloom, the base of whose bell shaped calyx serves for a throne. The favourite subjects are rarely scenes from the *jātakas* but principally from the life of the Buddha and are of an edifying character.

The Gandhara School and the Mathura School

Chronologically the Mathura school of art is later than the Gandhara school.[10] Naturally the question arises whether this latter school has been in any way influenced by the Gandhara school. The fact that remains of Indo-Hellenistic art have been found in Mathura and that this school also represents the Buddha in a human form have made the question both significant and interesting. For, we find divergent views held regarding the influence of the Gandhara school on the Mathura school and the independent development of the Mathura school. Smith and Grunwedel see in the Mathura

9 *History and Culture of Indian People, vol. II : The Age of Imperial Unity*, p, 518.

10 The beginnings of the Mathura school have been dated as a century or two later than the Gandhara school. The great flourishing period of the Mathura school coincides with the reign of the Kushanas,

sculptures some Hellenic elements, but do not find any striking similarity between these sculptures and those of the Gandhara. They therefore take the existence of an Indo-Hellenistic school to differentiate it from Greco-Buddhist school of Gandhara. This school flourished in Mathura prior to the Greco-Buddhist school in the north-west.[11] The Mathura school represented pure Greek subjects and exhibits an earlier Greek influence.

Regarding the linking of the Mathura school with the Gandhara school on account of the statues of the Buddha, different views are held. Foucher, Vogel and Waldschmidt think that we have in Mathura school an independent development without any influence of Gandhara school. According to Waldschmidt the first Gandhara Buddha belongs to first century of the Christian era and first Buddha of the Mathura school uninfluenced by Gandhara to about a century later. Cohn maintains the Buddha statue to be a purely Indian invention. Similarly Bachhofer believes that the Buddha image was evolved twice and independently.[12] Foucher seems to agree with Smith and Grunwedel when he observes that the Gandhara school has not direct filial relation with earlier art of Maurya and Śuṅga times, though there appear in both certain elements common to the Hellenistic art of Western Asia. The artists of the north-west were masters of the technique of Asia Minor and had no need to copy trirons, centaurs and so forth from the works of their humbler predecessors in the interior. It is pertinent to note what Vogel has to say in this context. Vogel remarks, 'The Mathura school far from being a direct and early expression of Greek influence, received its classical inspiration indirectly through Gandhara. Mathura owing to its geographical position and

11 Banerjee, *Hellenism in Ancient India*, pp. 84-87.
12 Tarn, *The Greeks in Bactria and India*, pp. 394-398.

to its political importance during the Kushana period was the first to feel that influence'.[13]

Whatever may be the full truth of the matter one is inclined to accept Foucher's view that portryal of the Buddha as a man was due to semi-Greek art of Gandhara but once the Buddhas of Mathura came into prominence, the later Indian art derived inspiration from Mathura to create later Buddhistic statues.

The view of Havell deserves notice here. According to Havell and Coomarswamy there is nothing in the Gandhara school to imitate. Havell remarks, 'the earliest Gandhara sculptures were no better than mechanical craftsmen, hirelings following more or less impure Hellenistic traditions engaged by frontier kings in the manufacture of inferior objects of handicrafts which are mere 'soulless puppets' debased types of the Greek and Roman pantheon posing uncomfortably in the attitudes of Indian scepticism and tarred with vices of commercialism, insincerity and want of spirituality conspicuous in the earliest examples. It is surely incorrect to say that the ideal of Indian Buddhist art has been created by foreigners'.[14]

Banerjee strikes the middle path when he refutes these views. He does not agree with Havell in holding that Gandhara art lacks in spirituality. It may not express the ideas of Ellora and Elephanta but it must be admitted that many of the good Gandhara sculptures express with admirable feeling and sincerity the ideal of a saintly Indian and do not lack in dignity. Fergusson has paid high tributes to the best works of the Gandhara school by appreciating their

13 Banerjee, *Hellenism in Ancient India*, p. 88.
14 *Indian Sculpture and Painting*, p. 45.

aesthetic, technical, plastic and religious sentiments of the patrons. This is because, as Banerjee would explain, 'the Gandhara art is a combination of both Hellenistic and Indian art'.[15]

Gandhara School : A Dravidian School

An interesting view is to be seen in the writings of Father Heras,[16] according to whom there is no school named Greco-Buddhist school and Gandhara art is creation of indigenous artists. The conclusion of Father Heras can be presented thus :

(1) The so-called Greco-Buddhist school of Gandhara did not flourish in the centre of the Greek possessions in the East, but only in the regions south of the Hindu kush and in the north-western provinces of Hindustan.

(2) The centre of this school seems to have been Hadda on the plains of Jalalabad, 6 miles south of this city. The specimens of this school found in Peshawar, Taxila and Lahore are not as beautiful as the Hadda ones.

(3) The so-called Greco-Buddhist school of Gandhara is not at all influenced by Greek models or by Greek ideals ; though the Gandhara works of art have an *apparent* point of contact with those of the Greek school yet they are totally different in their main object and in their practical execution.

(4) The school of Gandhara aims at the reproduction of reality, not precisely the physical beauty of man, hence it

15 *Ibid*, pp. 91-92.

16 *The Origin of the so-called Greco-Buddhist School of Sculpture*, JBBRAS, vol. 12, 1936, pp. 71-97.

discloses the affections and feeling of the soul in the most marvellous way, an object which has never been within the scope of the Greek school.

(5) The Gandhara school is only the continuation of the artistic tradition of the Dravidian nation, whose first known specimens come from Harappa and Mohenjodaro.

(6) The Gandhara school flourished so much thanks to the patronage of the Kuṣāṇa king Kaniṣka. The degeneration of its art was due to the admittance of Aryan artists among the Dravidian sculptures.

Thus according to Father Heras Gandhara school is an offshoot of Dravidian school and the Indigenous people—the pre-Aryan—were responsible for this kind of sculpture. He denies any Greek influence on the statues of the Buddha and would trace these peculiarities, the curls of hair and protuberance of skull, as marks or the *lakṣaṇas* of the perfect man, according to ancient Buddhist literature. But even then he could not escape admitting Greek influence in certain peculiarities for instance the style of wearing the *sanghati* being undoubtedly the imitation of the Greek fashion of wearing *toga*. As regards the style of hairs, the profile of some images of the Buddha, the resemblance with the ancient Greek statues is very striking.

One would feel Father Heras overstating his case. It would be very difficult to connect the later art with the art of the Indus Valley, for the Indus Valley art does not deal with presentation of garments and headdresses.

Conclusion

After considering all these views offered in this contro-

versy one is inclined to agree with Banerjee. According to him the Gandhara art is the combination of both Hellenistic and Indian art. Hellenistic artists gave it the chief standard types of the Buddha and Indian artists supplied it the spiritual conceptions. It is very natural that Indian art is influenced by the foreign art. The rapid development and extension of the distinct Gandhara school with its characteristic Indo-Corinthian capitals, were effected under the patronage of the great Kuṣāṇa kings and their immediate predecessors, who must have imported foreign artists and through their agency have applied the Hellenistic technique to Indian subjects, much farther than had ever been done before. Such foreign artists accredited by royal authority and fashion of the court would have been readily accepted as teachers by the local Indian sculptors, who in their usual way would have proceeded to adapt the new methods to their own purposes, sometimes perhaps improving on the instructions of their masters. Moreover, it was no reproach to Indian art that it was thus able to borrow forms and ideas from the Greek. The Indian mind has taken a part no less essential than has Greek genius in the production of the Gandhara sculptures. And for the strong support of this view Banerjee remarks, 'It is a case where East and West could not have done without each other. It is not the father *or* the mother who has formed the child, it is the father *and* mother.[17]

In this context J.H. Marshall's remarks are very significant. He writes, 'Nevertheless in spite of its wide diffusion, Hellenistic art never took a real and lasting hold upon India for the reason that the temperaments of the two peoples were radically dissimilar. To the Greek man, man's beauty, man's intellect were everything. But these ideals awakened no response in the Indian mind. The vision of India was

17 *Hellenism in Ancient India*, p. 92.

bounded by the immortal rather than the mortal, by the infinite rather than the finite. Where Greek thought was ethical, his was spiritual where Greek was rational, his was emotional.[18]

Sculpture

The Gandhara school mainly produced statues of the Buddha which are now preserved in different museums. For example, Buddha in *dhyana mudra* found at Hadda, now in Kabul Museum, Head of Bodhi-sattva in Peshawar Museum, Maitreya Bodhi-sattva surrounded by devotees, found at Kapisa, now in Kabul Museum.

The first recorded discovery of sculpture at Mathura is that of the Silenus group, where, Cunningham describes, 'The dress of the female is certainly not Indian and is almost as certainly Greek'. Prinsep refers to it 'as a piece of sculpture bearing references to Greek mythology not boasting as unequivocally of the beauty and perfection of Grecian sculpture'.[19] The most important sculptural remains at Mathura is the standing Buddha image, now in the Lucknow Museum. Another life-size female statue, excavated at the Saptarshi Tila proves to be a Gandhara sculpture both in style and material. The Pardham image, the image of Herakles strangling the Nuemean lion also belongs to Mathura school. The four great events of the life of the Buddha are depicted both in the Gandhara and Mathura schools.

The Bacchanal scenes are the examples of the Indianisation of classical subjects which are distinct imitations of

18 *The Monuments of Ancient India, Cambridge History of India*, vol. I, p. 649.

19 Banerjee, *Hellenism in Ancient India*, p. 79.

the Greek types found mainly in the Gandhara region. Their magnificent decorations, reliefs which intersperse between the giant wrestlers and grape gatherers and the goat of Dionysius hidden among the vine-branches are the Bachic episodes. In Gandhara, we find a sculpture of a young fawn draped in tunic, open at the thigh, offering drink to a female Bacchante with his arms amorously turned round her neck. The Chigaon in the fashion of the Greeks of this latter and of her neighbour is particularly striking. In another group a hairy man dressed as pan is running towards the left turning sideways to a female cymbal player, who follows him while dancing. The bearded heads are unmistakably derived from the representations of Satyrs in Hellenistic Art.

Architecture

It is true that there is no trace of the existence of pure Greek architecture. No building yet examined, was designed upon a purely Greek plan, or with an elevation exhibiting one or the other of the Greek orders. But the Indo-Hellenic architects freely used certain Greek architectural forms, columns, pilasters and capitals for decorative purposes. Taxilian temples with Ionic pillars were the examples of Indo-Hellenic architecture. Banerjee draws our attention to striking similarities between the Indian and Greek system of architecture as are to be in several mouldings thus : *kapota* resembles in some measure the corona of Greek order, *Padma* resembles *apophyge* or *ogre* of Ionic or Corinthian orders.[20]

Coins and Seals

According to John Marshall the threads of Hellenistic

20 Banerjee, *Ibid*, p. 32.

culture established in India are mostly evident from the coins. Their standard is the Attic standard, their legends are in Greek, their types are taken from Greek mythology and designed with a grace and beauty reminiscent of the schools of Praxiteles or Lusippus, and their portraiture is characterised by a refined realism which is unmistakably Greek.[21] The types of the Greek deities are more distinctive in style. These are later imitated by the coins of the Guptas.

Dr. D.R. Bhandarkar found one seal at Besnagar excavation, the legend on which refers to Demetrius. Another indication of Greek influence is found in a mould of steatite stone for preparing medals, on one face of which is what looks like the obverse of an Indo-Bactrian *drachma*, exhibiting the bust of a king, diademed and turned to the right. On the face of the mould is the Caduceus of Hermes. The workmanship of the mould and the carving of the bust and caduceus show distinct Hellenistic influence.[22]

Dance

The *Nāṭyaśāstra* and literature connected with folk dances mentions a popular circular dance termed as 'Hallīsaka'. This was a mixed dance and this is vitally connected with the Rasa dance so well-known in the context of Lord Krishna and the gopis in the Bhāgavata cult.[23] Bāṇa mentioned twice dancers dancing *Arabhaṭī* dance which had five peculiarities: (1) The *Maṇḍali Nṛitta*, (2) the *Rechaka*, (3) the

21 *Cambridge History of India*, vol. I, p. 644.
22 Banerjee, *Hellenism in Ancient India*, p. 78.
23 *maṇḍalena tu yannṛttaṁ hallīmakamiti smṛtam /*
ekastatra tu netā syāt gopastrīṇaṁ yathā hariḥ //
tadidaṁ hallīsakameva tālabandhaviśeṣayuktam rāsa eva iti uccyate.
—*Sarasvatīkaṇṭhābharaṇa*, p. 309.

Rasa, (4) *Rabhasārabdhanartana* and (5) *Chaṭulaśikhanartana*. The Maṇḍali *Nṛitta* gives the design while the *Rabhasārabdhanartana* and *Chaṭulaśikhanartana* indicate the rising tempo of the dance. The *Rechaka* refers to the movements of the waist, the hands and the neck. The *Rasa* indicates the number either 8 or its multiples upto a circle of 32. This vigorous dance was the *Ārabhaṭī* dance. The *Ārabhaṭī* thus was a mixture of the *Hallīsaka* and the *Rasa*. The *Hallīsaka* is connected with the Elysian mystery dances which were in vogue between the first century B.C. and the first century A.D.[24] Here therefore is some Greek influence to be traced in *Hallīsaka* and *Rāsa* dance connected with Kṛishna. It is also important to remember that we hear of the Greeks who were devotees of *Kṛishna Paramabhāgavatas* like Heliodorus, mentioned in the Besnagar inscription. Further, the Greek geographers mention the people *Arbitae*, on the western side of the Indus and in south of Baluchistan. The province and the people were so named perhaps because the river *Arbius* flew through it. Arrian and Strabo regard this region as western end of India. Alexander's Greek army, while returning passed through this land, hence it had undoubtedly contact with the Greeks. It is, therefore, perfectly natural to understand the *Ārabhaṭī* style, a special contribution of these people which as observed before, is a mixture of the Indian *Rāsa* and the Greek Hallīsaka.

Histrionics : *Abhinaya*

The *Nāṭyaśāstra* mentions four *vṛittis* : *Bhāratī*, *Sātvatī*, *Kaiśikī* and the *Arabhaṭī*. These are vitally connected with *abhinaya* on the one hand and the *rasa* on the other. The *Arabhaṭī* is connected with vigourousness and hence the

24 V.S. Agrawal, *Harṣacarita, eka sāṁskṛitika adhyayana*, pp. 33-35.

Vīrarasa.[25] It is also connected with the *Gauḍī* literary style. What is true of the *Ārabhaṭī* style is true also with this *Ārabhaṭī* dance. Hence we see here also the Greek influence on Indian histrionics and literary style.

While speaking of the arts that developed in India and which had impact of the Greek on them, one has to mention the theatre and the drama as well. The word *javanikā* used in the Indian theatre establishes its connections with the Ionians. The Indian king is surrounded by Ionian women as his body-guards as is seen in the *Śākuntalam* of Kālidāsa.[26] The origin of the Indian drama is a matter of controversy and the discussion of the problem is reserved for treatment in the sections on literature.

25 *Nāṭyaśāstra*, 20-26.

26 *eṣa yavanībhiḥ parivṛtaḥ priyavayasya ita eva āgaccati*, Act II.

3

Sciences

LIKE THE GRECO-BUDDHIST school of Gandhāra art, another field where more or less definite Greek influence is suspected is that of Indian astronomy, medicine and mathematics. This is not to say that Indian sciences owe their very existence to the Greeks, for the antiquity of Indian sciences is self-evident, and beyond doubt. Indian astronomy originated as a handmaid to the cult of sacrifice and was religious in inspiration. Astronomy, geometry and architecture developed out of ritualistic necessities, for these were vitally connected with the timely performance of the sacrifice and the correct construction of the *vedis* of different types. Similarly Indian medicine dates back from the times of the *Atharvaveda* and the *bhaiṣajyāni* would seem to mark the beginning of this science. The Buddhist *Vinaya piṭaka* shows the development of medical science which is further reflected in the regular works on medicine, the *Charaka Saṁhitā*, the *Suśruta Saṁhitā* and the *Vāgbhaṭa*. The Vedic period ending with sūtra period (second century B.C.), therefore, one might say, is the dawn of Indian sciences.

From the fourth centnryB.C. onwards the Greek came into contact with Indians. This contact must have resulted in a serious study of these different sciences and as is but natural

there must have been a good deal of give and take since science cares only for truth and knows no barriers. It is this give and take between the Greeks and the Indians that marks the development of these sciences in the period from the fourth century B.C. to the 4th century A.D. what we have here in the special context of this essay called Indo-Greek period.

Astronomy and Astrology

Scholars had contradictory opinions regarding the precise nature of the development of astronomy in Greece and India, the matter of their independent development or development in mutual impact. Burgess is of the view that the Greeks had borrowed astronomy from India. Whitney on the other hand holds that the Indians borrowed it from the Greeks. Both in India and in Greece we see the independent development of this science from ancient times.

Parāśara, the author of the *Parāśaratantra*, is admittedly the earliest of the Indian astronomers who flourished in the second century B.C. Parāśara's name is vitally connected with Vedic calendar. After Parāśara there is Garga, the author of the *Garga Saṁhitā*, whom Kern places in the first century B.C. The date proposed by Kern may not be acceptable yet the work cannot be placed in a period later than the second century A.D. Varāhamihira, the author of the *Bṛihat saṁhitā* lived in the fifth century A.D. and he mentions the four wellknown *siddhāntas* in astronomy : the *Pauliśa siddhānta*, the *Romaka siddhānta*, the *sūrya siddhānta* and *Paitāmaha siddhānta*. Dr. R.G. Bhandarkar and Thibaut agree in assigning all these *siddhāntas* to the fourth century A.D.[1]

1 Banerjee, *Hellenism in Ancient India*, pp, 139-141.

In Greece also astronomy had its even full development. Thales (c. 636-570 B.C.) was the earliest. Then Aneximender (c. 610-547 B.C.) declared that the earthmoves round its axis and that the moon reflects the sun's light. Pythagoras (c. 570-490 B.C.) comes after Aneximender. Anaximenes (c. 550-470 B.C.) taught gnomics and Anaxagorus (c. 499-472 B.C.) ascribed the cosmical adjustments to intelligent design. Eudoxos introduced the share. Thus astronomical research was continued by Plato, Aristotle, etc., down to Claudius Ptolemy (A.D. 100-160).[2]

It may be suggested that there are convincing reasons for accepting the influence of Greek on Indian astronomy.

Romaka and Pauliśa siddhānta

Romaka siddhānta derives its name from 'Rome'. It shows clear traces of the Greek influence. The duration of the year is calculated accurately as Hipparch and following him Ptolemy had calculated the length of the tropical year. He takes a *yuga* to be of 2,850 solar years and in this respect he differs wholly from the ancient *yuga* tradition. Alberuni cites frequently the *Pauliśa siddhānta* and says that the work is named after the Greek author Pauliśa of the city of Saintra, which according to him is to be Alexandria. Weber has made the suggestion that Pulisa, the Greek, may be identical with Paulus Alexandinus, the author of an astrological work of the title of *Eisagoge*. In this Eisagoge so he argues (Ind. Stud. II. p. 260), there is a passage which agrees 'almost literally' with the one found in a modern Hindu book on Nativity, the *Māyana-ratna* by a certain Balabhadra. Banerjee is not inclined to accept Weber's suggestion, for there is no proof that Balabhadra borrowed it from Pulisa, but he accepts that Pulisa was a

2 vide : Banerjee, *Hellenism in Ancient India*, pp, 141-142.

Greek.[3] In supporting this view, he notes that the Pulisa calls 'solar' (*saurya*) time what otherwise is called civil (*savana*) time or as Utpala puts and exemplifies it "what with us is civil time, is with Pauliśa āchārya, 'solar time', a solar time being with him the interval from midnight till midnight or from sunrise till sunrise". As the original *Puliśa siddhānta* is not before us, more details about the Greek influence cannot be given. But Banerjee concludes, "Indian astronomy in its scientific form is derived from the astronomy of the Alexandrian schools and its technical nomenclature is to a large extent Greek, in a slightly disguised form.[4]

Yavanajātaka of Sphūrjidhvaja

It is a Sanskrit translation of a Greek planetary text written in 269 A.D.[5] In its concluding portion detailed astronomical instructions are given for the use of Indian astrologers. In this Greco-Indian manuscript, the methods in use for the synodical periods of the superior planets are still closely related to those developed in Mesopotamia in the Selecucid period.

Vṛddha-Yavana-Jātaka

This is also a Sanskrit treatise of 4,000 stanzas. This might have been translated from Greek. It is attributed to Mīnarāja Yavanāchārya. Mīnarāja has been taken to be Greek Minos.[6] It may be here mentioned that Varāhamihira also cites one Manitthācārya who has been identified as

3 Banerjee, *Hellenism in Ancient India*, p, 144.

4 Ibid, p, 145.

5 It is first translated from Greek by a Greek Yavaneśvara in 169 A.D. and reproduced by Sphurjidhvaja a century later.

6 Vide : Winternitz, *History of Indian Literature*, vol. III part II. p, 658 fn.

Greek Manetho.[7] It is believed that we have one work from him.

Garga saṁhitā

Here we actually find a stanza in which dependence of Indian astronomy on that of Greece is recognised. The Greeks are barbarians, but science is firmly established among them. They are on this account honoured equally as sages, what to speak of a Brāhmaṇa, who is a scholar of Astrology.

mlecchā hi yavanāsteṣu
samyak śāstramidaṁ sthitam |
ṛṣivattepi pūjyante
kimpunar daivaviddvijaḥ ||[8]

Horā

The branch of astrology that is devoted to casting of a horoscope and is called *Jātaka*, i.e., 'Nativity' or 'Horā' developed wholly under the influence of Greek astrology since we have here many Greek technical terms. Thus *lepton* becomes *lipta* (minute); *apoklima* remains *apoklima* (inclination) ; *dekanos* becomes *drkana* (decan) ; *horā* remains *horā* (hour or horoscope) ; *diametron* becomes *jayāmitra* (literally friend of chord-diameter.[9] Again, it has been observed by Burgess that the technical terms in Varāhamihira are all used in the same sense in the *Eisagoge* of Paulus Alexandrinus and occur in all astrological works after the fourth century A.D.[10]

7 *Ibid*, p, 658.
8 *Ibid*, p. 654.
9 Jairazbhoy, *Foreign Iufluences in Ancient India*, pp. 73-74.
10 JRAS, p. 748.

The names of the Zodiac and planets in Āryabhaṭa (499-500 A.D.) and in Varāhamihira are certainly of Greek origin as is pointed out by Schredor as the following table shows[11] :

a) *Zodiac*

Greek	*Sanskrit*
Krios	Kriyā
Tauros	Tavuri
Didumoi	Jituma
Karkinos	Karkin
Leon	Leya
Parthenos	Pathena
Zugon	Juka
Scorpios	Kaurpya
Toxotes	Taukṣika
Aigokeros	Akokera
Hudrochoos	Hṛdoga
Jakhthus	Ith, Ithusi

b) *Planets*

Helios	Heli
Hermes	Himma
Ares	Ara
Kronos	Kona
Zeus	Jyay
Aphrodite	Asphujit

Quite apart from these terms there are strong indications of the adoption of Greek concepts and methods in the Indian system. First of all there is such a coincidence in the Greek

11 Jairazbhoy, *Ibid*, pp. 71-72.

and Hindu theories of epicycles in accounting for the motions of planets and in calculating their true places, as almost to preclude the idea of independent origin or invention.[12] The division of the circle into signs, degrees, minutes and seconds is the same in both systems.

Next, the Indian treatment of planetary latitudes in the combination of ecliptic and equatorial coordination appears also in Hipparchus (c. 150 B.C.) discussion of Aratus Phenomena and the parallelism is thought not to be accidental.

In addition to these facts G.R. Kaye expresses[13] the following features as introduced through the Greek into Indian astronomy :

1) The notion of parallise and methods of calculating it,
2) methods of calculating edipses,
3) the notion of heliacal settings and risings of heavenly bodies chiefly with astrological applications,
4) correct rules for calculating the length of the year was revised and finally,
5) planetary weekday names were introduced.

These are the points which convincingly prove the Greek contribution to Indian astronomy and astrology. There are, however, scholars who offer a different explanation to these agreements. Thibaut, for example, considers the association of *Pauliśa siddhānta* with Paulus Alexandrius unlikely, for Paulus Alexandrius wrote one Astrological book, whilst all the redactions of the *Pauliśa-siddhānta* are astronomical. S.R. Das suggests that Pauliśa need not be Paulus since the name is known also of an Indian sage. He claims that the

12 Jairazbhoy, *ibid*, pp. 74.
13 JRAS, 1910, p. 752.

theory of heliacal risings and settings of stars and planets originates in India and was introduced into Europe through Greek mediation.[14] Sir William Jones remarks, 'I engage to support an opinion that the Indian division of the Zodiac was not borrowed from the Greeks or Arabs but having been known in the country from time immemorial. Burgess holds "The use of this twelve-fold division and the present names of the signs can be proved to have existed in India at as early a period as in any other country."[15] It should be admitted that in spite of the agreements the two systems have their differences also, as the systems are in development. But, as the similarities are too obvious to be denied or explained away, one can agree with Banerjee, who observes, "the scientific Astronomy of the Indians should be regarded as an offshoot of the Greek science."[16]

Medicine

At the time of the arrival of the Greeks in India the science of medicine was already developed. Arrian informs us that in the expedition of Alexander the Great to India the Grecian physicians found no remedy against the bites of snakes, but the Indians cured those who happened to fall under that misfortune.[17] It is to be noted that Chandragupta sent some medicinal drugs to Seleucus Nikator. There is evidence which proves an Indian influence on the Greek medicine. Dioskorides (1st century A.D.) in his *Herbal* specifically states that the following plants were brought from India for medicinal purposes : *Kardamomum* (I.5),

14 *The alleged Greek influences on Hindu Astronomy, Indian Historical Quarterly*, IV, 1928, pp. 70-75.

15 Banerjee, *Hellenism in Ancient India*, p. 145.

16 *Ibid*, p. 150.

17 *Ibid*, p. 167.

Nardos (I.6), *Malabathrum* (I.11), *Kostos* (I.15), *Calamus Aromaticus* (I.17), etc. Agallochon (I.20), *Nascaphthum* (I.22), *Bdellion* (I.80), *Aloe* (III.25) and *Indikon* or Indigo from Indian reeds (v. 107). Indian elements in the *Materia Medica* of Dioskorides and earlier authors include the Greek equivalents of such Indian substances as *pipali* (pepper), *kustha* (a plant), *śṛṅgarera* (ginger), *kardama* (cardamom), *vaca* (an aromatic root), *guggulu* (fragrant gum), *mustaka* (a fragrant grass), *śarkarā* (sugar), *tila* (sesamum), etc. Pepri is prescribed in the Hippocratic treatise for 'the illness of women' and as an ingredient in the composition of the Indian medicament for the eyes, while Theophrastus too in his *History of plants* knows of pepper as a medical drug. Pliny (XII.4.(16) mentions the red bark of a root called Macir imported from India and made into decoction for dysentery. Camphor, a distinctly Indian product, is mentioned in the Syrian book of medicine of the Greek medical school of Edessa.[18] This clearly indicates that the Greeks learnt from the Indians the use of several medicinal plants.

In the field of anatomy, however, the Greeks were much advanced than the Indians. There was prevalence of diasection of human body in Alexandrian schools of Herophilos and Erasistratos in third century B.C., while in India there is no original passage in charaka which admits of this, though *Suśruta* has two chapters on surgical instruments and one on the mode of operation.[19] Hence it is held that India derived surgical doctrine from Greece. India admired the Greeks for their surgical operations. The Yavanas appear in the *Mahābhārata* as all knowing and there is an Indian story that the Greek physicians of Bactria and Texila were so skilful that they would give sight to the blind. It is suggested that

18 Jairazbhoy, *Foreign Influences in Ancient India*, pp. 77-78.
19 Keith : *A History of Sanskrit literature*, pp. 513-515.

the story grew out of some real operation of cataract.[20]

In the field of physiology the Indians and the Greeks have similar elementary theories. Both Hippocrates and Plato declare that the elements of the body consist of four ingredients, blood, phlegm, black and yellow bile. Charaka and Suśruta say air, bile, phlegm and blood are the chief elements of the body. They are called by them, "pillars of the system. If they be deranged they become the causes of disease. Without these elements, the individual could not exist". They assert also that "as long as the elements remain in due proportion the body remains in health ; when any one is increased or decreased disease occurs". This causation of diseases agrees precisely with that of Hippocrates and Plato. Plato says, "the disproportion of the physical elements of the body is the proximate cause of all diseases—since the marrow, the muscles, the bones and the ligaments consist of these elements as also the blood and humors derived from them. The disproportion of the elements produces degeneration of the humors and this degeneration again causes the different diseases.[21] The *Kauśika Sūtra* is seen to have the doctrines of the three elements only and it is therefore suggested that blood was added as a fourth element under the Greek influence.[22]

Another striking correspondence in the *Charaka saṁhitā* is the prescribing of rules for the Indian doctor, which resembles very minutely the oath which the Greek physician, according to Hippocrates, had to take upon entering his duties. The resemblance is not only in ideas but also in sentiments and expressions. The description of the *carpus* and *tarsus* in the Greek osteology of Celsus in the first

20 TARN : *The Greeks in Bactria and India*, p. 386.
21 Banerjee : *Hellenism in Ancient India*, p. 174.
22 Jairazbhoy, *Foreign Influences in Ancient India*. p. 78.

century B.C. agrees with the descriptions of the Talmud and of Charaka.

It is significant, as Prafulla Chandra Ray notes[23] that Charaka was present at a medical conference where he learned some of the views of a physician of Balkh in Bactria.

The Indian theory of the six essences of qualities or flavours *(rasa)* is strikingly similar to the corresponding Greek concepts *glyky, liparon, stryphnon, halmyron, pikron, drimy*, excepting that in Indian medicine these qualities form the basis of dietetics and pharmacology. Some more parallels in medical practice in ancient India and Greece may be noted as follows :[24]

(1) The three stages of fever, raw, ripening and ripe, corresponding to the Greek *apepsia, pepsis* and *acme.*
(2) The division of healing remedies into hot and cold or dry and oily.
(3) The healing of diseases by remedies of opposite character.
(4) Emphasis on prognosis in the characteristic Hippocratic manner.
(5) The influence of seasons in dietetics.
(6) The recommending of intoxicating drink contrary to Indian religious practice.
(7) The quotidian, tertian and quartan fever.
(8) The eating of earth in chlorosis.
(9) The birth of twins by division of the quantity of semen.

23 *Ibid*, p. 79.
24 *Ibid*, p. 80.

(10) The vitality of the foetus in the 7th month and the contrary in the 8th.
(11) The paracenesis in dropsy.
(12) The method of lithotomy in surgery.

All these close parallels clearly indicate that there must have been some kind of relation between the two systems and mutual give and take. Medical practitioners are quick to pick up anything that they consider as likely to be advantageous for their practice and effective in the matter of giving relief to the patients. Hence this possible mutual give and take between the early practitioners of Greek and Indian medicines.

Mathematics

The science of mathematics goes back to the Vedic times. Arithmetic and algebra had their origin in India, though about geometry, scholars express different views. There are certain similarities between the Indian mathematics and the Greek mathematics.

A number of Indian mathematical ideas have been attributed to Greek sources ; the trapezium problems in Āryabhaṭa are traced to Heron ; shadow problems go back to Thales ; progressions occur in Greek writings from Hypsides to Diophantus ; the problem of *epanthem* is copied from Thymarides or Imblichus. It is further contended that Brahmagupta treats of rational solutions of the right-angled triangle after Greek methods. Of cyclic quadrilaterals after Ptolemy ; of surds after Euclid and others, of indeterminate equations of the second degree after Diophantus.[25] It is,

25 *Ibid*, pp. 75-76.

however, very doubtful, whether there was such a close contact between the Indian and Greek mathematicians in those old days. B.N. Seal has pointed out that there is a difference of emphasis in the two systems.

About the decimal system Meugebauer remarks, "Both placevalue notation and zero symbol are in ordinary use in Babylonian and Greek astronomy. The Hindu innovation consists only in transferring this method to a number system with decimal order". He again suggests that the decimal place value notation is a modification of the sexagesimal place value notation with which the Indian had become familiar through Hellenistic astronomy.[26] But Banerjee rightly observes that the decimal system is very natural to human being and it owes its origin to the habit of counting upon the digits.[27]

Dasypodius and Huet held that the current symbols of the Indian numerals were derived from the first nine letters of the Greek alphabet, though for this twisting some of the letters, cutting off, adding and certain other changes are needed. But this view is not supported by Weber who observes, "The Indian figures from 1 to 9 are abbreviated forms of the initial letters of the numerals themselves. The zero too has arisen out of the first letter of the word *sūnya*".[28]

In the field of geometry there are considerable points of similarly between the *śulva sūtras* and the works of the Greeks. The so-called theorem of Pythagoras is an important and noteworthy topic in the *śulva sūtra*. But the date of

26 *Ibid*, p. 76.
27 *Hellenism in Ancient India*, p. 155.
28 *Ibid*, p. 159.

śulva sūtra is not fixed. Cator declares, 'It is as good as established that the resemblances between Greek geometry and the *śulva sūtras* are so obvious in essential particulars, that a borrowing on one side or the other is in the highest degree probable'. He is of the opinion that the *śulva sūtras* have been influenced by the Hero of Alexandria, around 215 B.C.[29] Weber also supports this view. But this cannot be accepted for the *śulva sūtras* belong to the Vedic period prior to the third century B.C. and it is very difficult to imagine the Greek influence at that time. Keith mentions that as regards intermediate equations, the Greeks by the fourth century had achieved rational solutions of equations of the first and second degree, and of some cases of the third degree. The Indian records go distinctly beyond this. Brahmagupta shows a complete grasp of the integral solution of $ax+by=c$. Brahmagupta, Mahāvīra and Bhāskara all contribute to the topic of the rational right angled triangle, but their results are different from those of Euclid and Diophantos. This proves the independence and originality of Indian mathematics. Keith, however, observes, "India borrowed its impulse to mathematics from Greece in the shape of those manuals whence she borrowed her astronomy, and this is certainly supported by the fact of Āryabhaṭa's evaluation of which is also ascribed to Puliśa and it was known to Apollonios and Ptolemy".[30]

Schroeder has proved that the fundamental mathematical notions such as the conception of irrationals and the use of Gnomons were native to India. Thibaut draws our attention to the fact that 'obvious indications as exist in the case of the Indian astronomy, e.g., the technical terms of unmistakable Greek origin, are absent in the region of mathematics'. He,

29 *Ibid*, p. 158.
30 *A History of Sanskrit Literature*, pp. 525-527.

further adds, 'At least in arithmetic, the Indian cannot be regarded as having originated from the Greek in any particular and that in certain higher matters, specially regarding indeterminate analysis, their works are considerably in advance of the Greeks'. About the Indian Algebra, Colebrooke writes, 'The Hindus had certainly made distinguished progress in the science, so early as the century immediately following that in which the Grecian taught the rudiments of it. The Hindus had the benefit of a good arithmetic notion : the Greeks the disadvantage of a bad one'. The Hindu and Diophantine systems, he adds, 'are sufficiently distinct to justify the presumption that both might be invented independently to each other'.[31]

Considering the advance that the Indians had made in the different sciences, from the Vedic times to the times prior to the advent of the Greeks, one is tempted to think that here possibly we are witnessing an independent development of these sciences in two of the most gifted peoples. After the contact one cannot deny the possibility of a give and take since evidence is available in astronomy ; but in any case the question of wholesale borrowing on either side does not appear to be probable.

31 Banerjee, *Hellenism in Ancient India*, p. 155.

4

Literature and Language

THE INDO-GREEK KINGS established Greek cities in India. They patronised the Greek sculptors who were responsible for the Gandhara school of art. Similarly they must have patronised Greek actors and Greek writers. It is said that apart from Alexandria and old Greek cities, Greeks of the Hellenistic period settled in Asia or Africa, did not, as a rule, produce literature, unless they were reacting against some definite threat to their Greekhood like a foreign rule. In India, however, we get some traces of the literature written by the Greeks. At least two Greek poems have been found—one a lyric and one in hexameters or elegiacs. There must have been some more Greek works also, now not available. For Jayswal writes that behind the sections of the *Yuga-purāṇa* which narrate the Yavana-conquest, there is a chronicle written, soon after the events described, by an Indian, in Prakrit. Tarn adds that, if this be so, the original Indian author wrote under the influence of Greek historical writing, whether it was the mere knowledge that there was such a thing, or whether there was once a Greek account of the conquest, perhaps used later by Apollodorus also one cannot say. According to Tarn, the author of part II of *Milindapañha* was influenced by the Greek literary type, and in support he cites that the picture of an ideal Buddhist city, the city of all wise and faithful men,

described in the *Milindapañha* can be compared to the Greek Utopia or rather to New Jerusalem.[1] Bāṇa mentions one *purāṇa* written by a Yavana (*yavana-prokta-purāṇa*). We also have treatises on astronomy composed by yavanas (*yavanajātaka*). It is thus clear that the Greeks in India did have their literary activities.

The learned Greeks were acquainted with their contemporary Indian literature. It is indicated from the occurrence in Ptolemy and in the Bussarica of Dionysius of the name of the Pāṇḍava-Pāṇḍus who were only a people of epic and the ultimate common source of Ptolemy and Dionysius can only have been a Greek who had read the *Mahābhārata* and taken the name directly from it. It may he connected with this that Ptolemy's names for the rivers of Punjab are nearer the Sanskrit forms than are the Greek names in use since Alexander's day, and suggest as their ultimate source a Greek acquainted with Sanskrit. Again, 'Trogus source' knew the Jain dating for Chandragupta's accession and can only have got it from some Greek, who read Jain writings, unless he could read them himself.[2] Again, it is unlikely that the Indo-Greeks used their own language for administration. The inscriptions of these kings are either in Kharoshṭī or in Brāhmī script and Prakrit vernacular. On their coins also, we find Prakrit language in Indian script. It is very natural that the Greek

1 Greeks in Bactria and India, p. 378. Dr. Tarn's views have been critically examined by Prof. A.B. Keith in his article "'Greek kingdoms and Indian literature", "*Achārya-Puṣpāñjali*, volume in honour of Dr. D.R. Bhandarkar, pp. 219-230. Subjecting all the arguments of Dr. Tarn to a critical examination, Keith comes to exactly opposite conclusion. He observes, "We are right to hold that evidence of influence of Greek literature associated with the presence of Greek dynasty in India, on Indian literature, is wholly negligible", p. 228.

2 Tarn, *Greeks in Bactria and India*, p. 381.

kings should know the language of the people over whom they ruled.

The Indians in their turn also knew and learned the Greek language and literature. There is the well-known contention of Diochrysostom that the memory of Homer lived not only among the Greeks but lived also among the barbarians. He observes in this connection, for his poems, it is said, are sung by the Indians who have translated them into their own language. Dio's contemporary Plutarch, towards the end of the first centurv A.D., claims that by 'Alexander's means Asia was civilized and Homer read there'. Dio actually specifies certain Homeric characters known to the Indians.[3] That Sophocles was acted in India or at least the theme of one of his plays known, is attested to by a fragment of a vase of local manufacture found near Peshawar. A scene from his play *Antigoe* represents Haemon begging from Creon for his beloved Antigone's life.[4] The story of Trojan horse was also known in the north-west India. It is proved by a stone relief portraying the Trojan horse, excavated in the Peshawar plain. In this manner Indians seem to have known the Greek literature directly or indirectly through it's translations. This living contact between the Greeks and the Indians is likely to have had its influence in every field of literature and scholars like Weber, Windisch and others have made attempts to assess and evaluate the same.

Drama

The earliest Indian dramas we have, are those of Bhāsa who is believed to have flourished in the second century B.C.

3 Jairazbhoy, *Foreign Influences in Ancient India*, p. 98.
4 *Ibid*, p. 104.

This is the period when the Greeks had living contacts with India. At present we do not have any stage-play that goes back to the pre-Greek era. About the origin of Indian drama, the traditional account is that it is divine in origin and came down as a fully developed art. In this context there are different theories like the 'Puppet theory' of Pischel or 'Religious dances' theory of Ridgeway. Weber was the first to suggest that the representation of the Greek dramas at the courts of Hellenistic kings in Bactria, the Punjab and Gujrat, where the Greek power had already extended, awakened the Hindu faculty of imitation and thus led to the birth of Indian drama.[5] It is true that Greek plays were acted in India for there were Greek *poleis* and a *polis* of any pretensions without a theatre is unthinkable. It can also be held that the Greeks took with themselves Homer and Euripides to India. Plutarch states that the plays of Euripides and Sophocles, were acted at Susa.[6] Alexander had set the precedent of introducing Greek actors and musicians into various parts of his Empire. Arrian tells us that at the capitulation of Taxila, Alexander held gymnastic concert and equestrian contests on the banks of the Indus. According to Aristoboulos after passing through the Gedrosia desert in Karmania, Alexander celebrated a musical and gymnastic concert. It is only natural that the Greek settlers in the various Alexander-cities in the east would continue to resort to these forms of entertainment.[7] There was a Greek gymnasium and stadium at Susa. As there is no evidence in Indian literature of the performance of plays in specially built theatres prior to the Greek advent Jairazbhoy suggests the possibility of a staged performance being introduced in India by the Greeks.[8]

5 Banerjee, *Hellenism in Ancient India*, p. 219.
6 Tarn : *Greeks in Bactria and India*, p. 382.
7 Jairazbhoy, *Foreign Influences in Ancient India*, p. 104.
8 *Ibid*, p. 105.

Scholars have pointed out the similarities between the Greek and the Indian drama. There are indications of Greek dramatic influence on the Indian theory of drama. Bharata in his *Nāṭyaśāstra* says that there should be five actors in a drama and this corresponds to the list of the regular male personnel in a Greco-Roman play. There are some points of resemblance in the theory of drama as given in the *Poetics* of Aristotle and in the *Nāṭyaśāstra* of Bharata. Aristotle's unity of time is in Bharata the restriction of events to a day in any one act ; both stress unity of action and place. The *mimesis* of Aristotle is the *anukṛti* of Bharata. It must however be remembered that *anukṛti* is not an imitation of an action but is an imitation of a state or a condition. Aristotle's threefold distinction of characters as ideal, real and inferior, is similar to Bharata's division of characters as high, middle and low. Finally, Aristotle's character of parasite appears reflected in Bharat's *Viṭa.* Windisch compares the Indian *Viṭa*, *Vidūṣaka* and *Śakāra* with the *parasite*, the *servus* currens and the *miles gloriosus* of the Greek drama.[9]

It is believed that like the travelling Greek sculptors there were travelling companies of players, who traversed the Hellenistic kingdoms. Hence a theory is put forth that the Indian plays are derived from the new attic comedy of the school of Menander. Windisch thinks that the theatre of India was influenced by the New Attic comedy of Menander and Philemon. The Greeks, according to him, entered India chiefly by two routes ; one overland through Palmyra and Bactria and the other, maritime through Alexandria and the parts of Western coast, specially Barygaza. Ujjayinī had trade contacts with Barygaza. Windisch concludes that the Indian drama was first developed in that city, as a direct result of the intercourse with Alexandria. He thinks that the

9 *Ibid*, p. 105,

dramas of India offer a few points of resemblance to the tragedies of Aeschylus or Sophocles, and compares them with the new Attic comedies. It is here he observes, 'that we find an echo of Rome in the bazars of Ujjainī. The formal structure of the Sanskrit dramas closely resembles that with which we are familiar in Plautus and Terence. Like the Greco-Roman, the Indian plays are divided into acts and scenes and each piece is preceded by a Prologue.' The love-story of the Indian drama is in plot, development and denoument essentially of the same kind, as in the Greco-Roman comedy. The description of Curculis of Plautus by Rost can be applied to the plot of *Mṛicchakaṭika* as 'the subject of his comedy is very simple and depends, as usual, on a secret intrigue, the lover's want of money and the supplanting of a rival. The fair peridiatas of Plautus and Terence, who eventually turned out to be highborn daughters, Athenian citizens, find their parallel in the maids of the Indian plays, the *Mālavikāgnimitram* and the *Ratnāvalī*, who are princess in disguise, and the anageorimos, the recognition of the disguised young ladies, which is a critical incident in nearly every Greek and Roman play is repeated merely with variations of detail in the Indian adaptations. Other stock characters of the Terentian comedy have also been imported into the Sanskrit drama. The *parasitus idax*, the *miles gloriosus* and such like casts, so familiar to all the readers of the Greco-Roman comedies are reproduced respectively as the *Viṭa*, the *Vidūṣaka*, etc. of the Sanskrit drama.

These arguments of Windisch have been carefully considered one by one and in great detail by Levi and he finds none of them convincing. According to him, the nature of the Sanskrit drama dealing with gods, kings and high society is altogether different from that of the Attic comedy, for the Attic comedy treats of the ordinary life of

the people and with its local tone it deals with the common traits of humanity in general, their virtues and their failings.[10]

Weber took the word *Yavanikā* to mean 'Greek cloth' and with this etymology supported the theory of Greek influence on Indian drama. But Rapson has shown that the word denotes some fabric made by Yavanas.[11]

Reich puts forth the view that the Indian Drama was influenced not by the Greek drama but by the Greek mime. Little is known of the Greek mime in the sense of a regular stage play, but the mime was of Greek origin and companies of mime actors did visit India.[12] The word *yavanikā*, in the context of drama is important. It cannot merely mean Yavana cloth because the Yavana name occurs three times in or in connection with the classical dramas and the Yavana cavalry and Yavana women embody true traditions come down from the period of Greek rule, it seems inevitable that the Yavana curtain must also represent a tradition going back to the same period. Now Greek dramas were not acted against a curtain, but Roman, and therefore presumably Greek mimes usually were and the Yavanikā must be the siparium of the mime players. Reich brought out some likeness between the classical and Indian mime, and perhaps a curtain does make a case for Indians being the borrowers.

The theory cannot be accepted because the serious dramas could not be the imitations of the mimes. Moreover, Reich himself admits that in Kālidāsa's most important play, *Śākuntalam*, there is no trace of the influence of the

10 Banerjee, *Hellenism in Ancient India*, pp. 221-225.
11 *Encyclopaedia of Religion and Ethics*, Vol. IV.
12 Tarn, *Greeks in Bactria and India*, p. 383.

mime at all. The points of resemblance in regard to the plot are of interest. There is some similarity between the stock theme of the *nāṭikā*, the love of a king for a maiden. hindered by various obstacles and finally successful through events which reveal her as a princess, destined for him in marriage but concealed in this aspect by some accident, and the New Comedy picture of the youth whose affection for a fair lady apparently of status which forbids marriage by Attic law, but in reality of equal birth is finally rewarded by the discovery of the mark which leads to her identification. The use of a mark of recognition is undoubtedly common in both dramas as ring in the *Śākuntalam*, stone of reunion (saṅgamamaṇi) in the *Vikramorvaśīya*, etc. Keith remarks that the motifs in Sanskrit drama have an earlier history in the literature and can therefore be regarded as natural development.

In an effort to prove Greek influence similarities are pointed out between the individual Indian authors and the Greeks. Thus :

(i) *Bhāsa* : According to A.C. Ahirreff the story of Udayana used by Bhāsa in his two plays *Svapnavāsavadatta* and *Pratijñāyaugandharāyaṇa* is borrowed from the Greek myth. The basic form of the Indian story seems to be founded on Euripides play *Alcestis* acted first in 438 B.C. Admetus resembles Udayana not in being a king of a wild forest realm and being a tamer of animals, but more particularly in having a musical charm given to him by Apollo for a favour conferred. With this lyre Admetus tames and harnesses a lion and wild boar to his chariot, a task which enables him to win the hand of Alcestis. It is true that Vāsavadattā does not die for her husband as does Alcestis, but she sacrifices everything for him, even suffering to live in saparation and disguise, and in this last respect again

there is a marked parallel in motif in the discovery of the identity of the veiled lady, Vāsavadattā in the one case and Alcestis in the other. The idea of luring the elephant with music in the Udayana story was borrowed from the Apollo myth.[13] The lyre also resembles the Greek one. Patañjali attests the use of the seven stringed *vīṇā* (*Mahābhāṣya* II.2.34) in the second century B.C. The traditional number of strings in a Greek lyre was incidentally also seven. The seven stringed *saptatantrī vīṇā* mentioned in the *Mahābhārata* (III. 134.14) is held to be the Greek *heptatonos phorminx*. From these similarities Jairazbhoy concludes that Udayana's lute has no connection with a real practice. Its unique magical quality, and its lagendary treatment in different stories in the Udayana cycle in Buddhist lore, both suggest for it a mythical origin, one to which the Phoenician story of Cadmus luring out Typhon from his grotto by playing the flute also belongs.[14]

(ii) *Śūdraka* : Windisch points out the similarities between the *Mṛicchakaṭika* of Śūdraka and the Greek drama *Cistellaria*. The title he compared with the Cistellaria, 'little chest' or the *Aulularia*, 'little pot'; the mixture of a political intrigue and a love drama with the mention—only incidental however—of political events contemporaneous with the action in Plautus's *Epidicus* and *captivi*. According to him the court scene is of Greek inspiration. He compared the meeting of Chārudatta and Vasantasenā with that of the hero and heroine of the *Cistellaria*. The theft of Śarvilaka, in order to buy the freedom of slave by Vasantasenā is similar to the attaining of the position of a freed woman in the Greek drama. The elevation of Vasantasenā to the rank of a woman of good character to permit of her legal marri-

13 Jairazbhoy, *Foreign Influences in Ancient India*, p. 102.
14 *Ibid.* p. 103.

age to Cārudatta resembles the discovery in the Greek drama of the existence of a free status as the birthright of the maiden whom the hero loves.[15]

(iii) *Kālidāsa* : A.J. Karandikar gives an interesting theory that Kālidāsa designed his plays after the Greek model. Not only the original idea but even the development of the plot is taken from the Greek prototype. Thus in the *Mālavikāgnimitra*, the quarrel between Gaṇadāsa and Haradatta is the copy of that between Aeschylus and Euripides in the farce of Aristophenes. The use of monkey (*piṅgala*) in the story or drinking habit of ladies (*Irāvatī*) are common in Greeks. The character of *vidūṣaka*—Gautama—is also peculiar. It is only in this drama, the *vidūṣaka* is depicted as wise ; because here he had to supply, like the Greek comedian slaves, not only the broad comic element but also the wit of the dialogue, and the fertility of expedient which make up the interest of the drama. In all other Sanskrit dramas, *vidūṣakas* are only fools and always lovers of eating. In the *Vikramorvaśīya*, the opening scene is modelled on Sophocles *Oedipus at Colonus*. Behind the transformation of the nymph into a creeper in the Fourth Act there is the metamorphosis of Daphne, a daughter of a river god, into a laurel tree. The main incident in the *Śākuntalam*, viz., the dropping of ring into water and regaining it in a fish owes its origin to the story of king Polukratis throwing his ring in the sea and regaining it in a fish. The *gandharva-marriage* of Duṣyanta with Śakuntalā resembles the *Paiśāca* marriage in the play Dyakolos of Menander. The words of Sophocles, viz., 'Not to be born is past all prizing best' are echoed in Kālidāsa's *mamāpi ca kṣapayatu nīlalohitaḥ punarbhavaṁ parigata-śaktir ātmabhuḥ*. In this manner Kālidāsa wrote well-constructed plays because the best Greek examples were

15 Keith, *Sanskrit Drama*, p. 64.

before him. It is noteworthy that when he writes of his own, he is not so good as is the case with the V Act of the *Śākuntalam*.[16]

Considered critically, these similarities appear as absurd. Commenting on the view expressed by Windisch, Keith observes that the mingling of the political and love intrigue which is not found in the Greek dramas, was introduced in the *Mṛichhakaṭika* to give new form to old theme, already depicted in *Cārudatta* of Bhāsa. The raising of Vasantasenā to a new status is also due to the new king Āryaka and has nothing to do with Greek drama.[17] Karandikar also is doing injustice to the great Kālidāsa. Although it is just possible that one or the other feature of the Hindu drama may be due to an outside influence, the subject matter is certainly original and truly Indian. Karandikar's judgement on the V act of *Śakuntalā* only reveals his bias and may not be generally accepted. Banerjee remarks 'The themes are, for the most part, the heroic legends in the epics or are taken from the sphere of actual court life. The themes at any rate, are not different from those of other Hindu literature. They show no foreign admixtures. It must not be forgotten that certain general coincidence between the drama and the theatre of different peoples are due to common psychological traits, hence genuine historical connection in such matters requires the most exacting proof. There are so many fundamental differences between the Indian and the Greek drama that *prima-facie* they have all the appearance of being independent developmet.'[18]

Epics

As the dates of the two epics, the *Rāmāyaṇa* and the

16 Karandikar, *Aśoka to Kālidāsa*, pp. 204-248.
17 *Sanskrit Drama*, pp. 66-68.
18 *Hellenism in Ancient India*, p. 231.

Mahābhārata, are fixed as lying between the fourth century B.C. and fourth century A. D. scholars are inclined to see Greek influence on them. According to Weber, the main themes of the Iliad the abduction of Helen across the sea and the siege of Troy, are in the *Rāmāyaṇa* reflected in the stealing of Sītā and the war at Laṅkā, which also lay across the sea. The story has been entirely transmuted by Indian predisposition and ideas. Again, the story of the condition of bending the bow for the marriage of Sītā has its source in the story in the Odyssey where Penelope promises to marry the suitor who could draw the bow and the subsequent slaying of the suitor by the hero. Jairazbhoy suggests the possibility that the battles of the Indian epics were stimulated by the example of Homer's Iliad, for there is the slightest chance of these former being true.[19]

Winternitz specifically denies these arguments of Weber and remarks, 'There can be no question of Greek influence in the *Rāmāyaṇa* and the genuine *Rāmāyaṇa* betrays no acquaintance with the Greeks.[20] K.T. Telang mentions the principal results of Weber's investigation in his long essay 'Was the Rāmāyaṇa copied ?' and considers them very critically. About the Greek influence he observes, "What comparison can there be between the very feminine Paris, who was the ravisher of Helen and Rāvaṇa the conquerer of the world, the dreaded enemy of the Gods themselves, who was the ravisher of Sītā ? What comparison can there be between the mean coquetry of the Greek heroine and the heavenly purity of King Janaka's child ? Agamenon is Menelaus's brother, Sugrīva is not the brother of Rāma. Patroklus is not the brother of Achilles and is killed. Lakṣmaṇa is the brother

19 *Foreign Influences in Ancient India*, p. 100.
20 *History of Indian Literature*, vol. I, p. 516.

of Rāma and is not killed. Further, if Rāma is to be compared to Achilles, who is to be impressed to do service for Menelaus ?......I submit that the principal characters are essentially distinct". At the end of his essay, in the Appendix F, Telang gives an interesting suggestion, "It is admitted that additions may have been made from time to time to Homer's original work. It is more than suspected that the Greek race and religion had an Eastern origin. It is contended that a number of circumstances betray the eastern birth of the Homeric legend. It is suggested that Homer may have travelled to some eastern city. In the light of these circumstances, is it not worth considering whether anybody is justified in taking it as a mere matter of course that Homer's work should be entirely Greek and unborrowed.[21] So it is proved that the *Rāmāyaṇa* is not the copy of Homer.

In the *Mahābhārata* there are numerous allusions to the Yavanas. The names of planets and the zodiac in the epic resemble those of the Greeks. We also find description of the Yavanas as western people, famous as fighters. The epic mentions king Bhagadatta who is identified with Apollodotus, the founder of the Greco-Indian kingdom and king Dattamitra who is identified with Demetrius. But the actual borrowing of the theme or its development under Greek influence is not proved.

Novels

In India we have novels by Daṇḍin, Subandhu and Bāṇa only after the seventh century A.D. The Greek novels are earlier than this period. Hence it is presumed that the Indian novels originated under the Greek influence. It was

21 *Selected Writings and Speeches, vol. I*, pp. 1-93.

Peterson who expressed this hypothesis and on its basis he believed to have discovered all sorts of echoes of and parallels to Indian fiction in the 'Love-story of Kleitophon and Leukippe' of Achilles atius. Peterson tries to see the resemblances between the *Kādambarī* and the Greek literature. He observes, "*Kādambarī* is not modelled on anything in Greek literature as the odes of Horace are modelled on the strains of Sappho or Alcaeus. The influence was partial and indirect, not direct and all absorbing, and analogies to the Sanskrit romance are to be looked for not in the plays of Aeschylus and Euripides, but in the Greek that was spoken and read and was popular, in the years that immediately preceded the final expulsion of the Greeks as a political power from the peninsula". He gives passages from Greek popular literature which are similar to the passages from the *Kādambarī* and from the resemblances, at the end, remarks, "The writers of the Indian renaissance period were not outside the all embracing influence of Greek letters".[22] Lacote, however, points out that the marriage of trees with creeper is an idea, originally Indian and borrowed by the Greeks. Similar is the case with Indian representation of Gods, being recognised by their staring eyes and by their feet not resting on the earth. Rohde has shown that the idea of love in dream and following it the selection of husband etc. in the story of Zariadres und Odatis, comes from India. Thus certain Indian ideas are found in the Greek literature and those of the Greeks in the Indian literature. But in its nature the Indian fiction differs from its Greek counterpart.[23] Winternitz in this connection remarks, 'It can in no case be proved that any Greek fiction whatsoever had come into India or an Indian fiction had reached Greece. Only this much is probable that some individual motives had been

22 Peterson, ed., *Kādambarī*, *Introduction*, pp. 99-104.
23 Keith, *History of Sanskrit Literature*, p. 368.

taken from one country to another. Even in that case this occurrence took place rather through oral transmission than through any literary influence.[24]

Levi does not accept Peterson's view that the Indian romance was directly borrowed from the Greeks. Gray supports Levi. Indian romances, they believe, are outcome of an independent development. The romances of two peoples are totally different, both in plan and in spirit. The least part of the Sanskrit romance is the thread of the story or the adventures of its characters, and all the stress is laid on rhetorics, embellishment, minute descriptions of Nature, detailed specification of exploits and of mental, oral, physical qualities. In the Greek romance on the other hand, the story is everything. The reader is hurried from one adventure to another, the wilder and more improbable the better, fine writing is practically disregarded, description and apprecia-tion of Nature are to all intents and purposes avoided. Again, the adventures narrated in Daṇḍin's romance of roguery the *Daśakumāracarita*, bear no resemblance either in plot or in episode, to the amorphisms of Eustothios and his fellows. H. Gray, therefore sums up that the spirit of the Sanskrit and Greek romances is as divergent as the audiences of scholars on the one hand and of the weaklings on the other, for whom they wrote, nor can any affinity be traced between the romances of India and of Greece.[25]

Lacote contends that the *Kathā* form was original in India, that there alone did it develop and that it was borrow-ed by the Greeks. Keith refutes every part of this statement. The love of Greece for tables and the story-tellers of Sybaris and Ephesos were famous.[26]

24 Winternitz, *History of Indian Literature*, vol. III, p. 410.
25. L.H. Gray, ed., *Vāsavadattā of Subandhu, introduction*, pp. 37-38.
26 *History of Sanskrit Literature*, p. 367.

In spite of certain similarities of motifs, like letters between lovers, long-winded lamentations, threats of suicide, the stories within stories etc. L. H. Gray also denies any relation of interdependence. Moreover, an interesting parallel is drawn by Gray between the manner of Lyly in his Euphues and that of Subandhu. They agree in laying all stress on form rather than subject-matter, though Lyly has a didactic end unknown to Subandhu. In this context of parallels one has to remember the view of Keith that 'parallels may arise without borrowing on either side'.[27]

Fables

In the Indian and Greek fairy tales and fables there are obvious parallelisms and the question who borrowed from whom cannot be settled in a decisive manner. Weber and Benfey believe that the Indian fables were borrowed from Greece while Wagener held that Greece was the recipient. Here the question of chronology also is not very easy. Various criteria have been proposed by which priority could be decided—the test of simplicity, naturalness or naivete by Weber, incompleteness by Benfey and the doctrine of logical sequence and conformity to the habits of animals as revealed in nature by Keller.[28] It should be noted here that there was a stock of myths in possession of the Indo-European people, from which the later fairy tales have developed.

Many parallels have been pointed out between the Greek tales and the Indian *Jātaka* and the *Pañcatantra* tales, thus

27 *Ibid.*, pp. 370-371.

28 *Ibid*, p. 352.

the story of the jackal which revealed its nature by its cry has a parallel in Phaedrus ; the story of the ungrateful snake which bit its rescuer ; the panther which treated the goat as does the wolf the lamb in Phaedrus ; the gods of Phaedrus who wish to drink up the stream have their parallel in the crows which would drain dry the sea ; the motif of the bald-headed man and the fly used with comic effect in Phaedrus, is turned to tragedy in the *Jātakas*. We find in Phaedrus the old tale of the eagle and the tortoise, and in India the swans have replaced the eagle.

Androclus' grateful lion has an Indian parallel in the grateful elephant ; Milo's death reminds us of the foolish ape in the *Pañcatantra*. India knows of paintings which deceive by likeness to life, as Parrhasios deceived even Zeuxis by his painted curtain.

It should be admitted that there were movements to and fro ; between Greece and India. A good story may be invented in Greece, pass to India, and return to Greece. There is a story of the snake who protected a child but was taken for its murderer and killed. Here we can see the origin of the touching tale of the Brahmin who slays the ichneumon which had killed the snake attacking its master's child. The legend is famous in the form of Llewelya and Gelert, a dog replacing the mongoose, and which can be traced widely over Europe. Thus each story presents its own problems—one may have originated in India or even in China and travelled to Greece, another may have originated in Greece and travelled to India. Decision in a precise manner is thus difficult.

Language

The Dohā metre : An interesting suggestion has been

made by Jacobi that the Dohā metre of Apabhraṁśa is to be traced back to the Greek hexamet er, the Dohā being the result of combining two hexameters into a stanza and then dividing it in the usual manner (Indian) into four lines. The Ābhīras, he contends were situated in Gandhāra and the neighbourhood during the period of the influence of the Greco-Bactrian kings, and they must have eventually felt the need for a rendering into an Indian speech of the Homeric poems. Thus to give version of Homer probably the original metre was used with a suitable adaptation and that is the Doha. Jacobi cites in support of his view the authority of Dio who tells us that the Indians knew Homer. Keith does not accept this suggestion, for according to him, the Dohā the dactylic form, can be explained independently. It is also generally held that Dio's statement refers to the *Mahābhārata*, the Indian equivalent of Homer.[29]

Words : A few common Greek words have found their way into Sanskrit. The terms for pen, ink, tablet, plaque and book are derived from the Greek, *kalama* from *kalamos*, *mela* from *melan*, *pitika* from *pittakion*, *phalaka* from *puxion*, meaning tablet with writing. On the other hand, the Greeks must have used some common Indian words, but the only ones which reached the West were terms for 'camp' 'army', and 'general' as mentioned by a Greek lexicographer, Hesychis.[30] It should be remembnred in this context that these resemblances which are far too many than such isolated words are due to the fact that Greek and Sanskrit both are Indo-Germanic languages and have a common origin.

Other Similarities : Dr. R.D. Ranade has considered the question of similarities between the two languages—Greek

29 *History of Sanskrit Literature*, pp. 370-371.
30 Jairazbhoy, *Foreign Influences in Ancient India*, p. 91.

and Sanskrit a comparative study.[31] He has pointed out striking similarities in these two languages in the matter of alphabet, accents, *sandhi*, article, declension, comparatives and superlatives, numerals, conjugation and syntax. These similarities cannot be explained by the 'plagiarism' theory of Dugald Stewart, nor on the basis of 'independent parallelism'. The theory of occasional contact of the two people in Alexandria, Babylon, Bactria and Punjab can explain only a few similarities, but not all. It is the theory of common origin that can explain all these similarities. And, as is said above, both are Indo-Germanic languages.

31 *Essays and Reflections*, pp. 29-68.

5

Religion and Philosophy

RELIGION AND PHILOSOPHY, it could be said with propriety, is the special field of India. The entire Vedic literature, the four *Saṁhitās*, the *Brāhmaṇas*, the *Āraṇyakas*, and the *Upaniṣads*—afterwards regarded as scriptures and divine in origin—was already in existence before the arrival of the Greeks in India in 320 B.C. In this field, therefore, India can only be a donor and not a debtor. It is not likely that the early Greek philosophy could have exercised any influence on the philosophic thought of India. The philosophy of the *Upaniṣads* does not appear to have been the product of any external influences. In Greece also philosophy was originated long back and it had its own orderly development. Since the religion and philosophy of these two people—the Greeks and the Indians—have considerable antiquity and good deal of independence, the question of their mutual relation becomes a very intriguing one. It is proposed to discuss here the similarities between the thoughts of these people in the matter of their religion and philosophy.

Religion

In the matter of religion, Greek religion gained in its intensity of religious life with its contacts with ths oriental spirit. The 'objective' of the earlier Hellenic polytheism was

the city, the tribe, the family ; later it became the individual soul. The earlier religious morality looked rather to works and practice, the later rather to purity and faith. Indian religion also as the Vedic literature reveals, had passed through all these developments even before its contacts with the Greeks. From the *Rigvedic* polytheism it had developed into *Brahman-ātman* philosophy of the *Upaniṣads* and the *bhakti-cult* of the *Bhagavadgītā.* This similarity and development of thoughts almost along identical lines with the Indian and the Greeks is in all likelihood due to their belonging to same Indo-European stock.

In respect of polytheism, concept of anthropomorphic deities, personal gods, the two religions reveal parallelism. For example, Dyaus in the *Veda* is Zeus in the Greek religion. In the Greek myth of the Dioskouroi and their relation to Helene, we have a clear variant of the legend of *Aśvins* and *Uṣā.* The practice of snake worship and the offerings made to different animals really amount to the recognition of the power of the animals to injure, and the desirability of making them a present to appease their will to work injury. The precise parallel is the practice in Greece of offering something to the flies to deter them from infesting the sacrifice.[1]

After the contacts of the Greeks with the Indians, Indian religions seem to have exercised powerful influence over the Greeks. After 320 B.C. the Greeks came to India and they were Indianised slowly. This is proved by the evidence of many inscriptions and coins. The Besnagar Garuda pillar inscription records Heliodorus as *parama-bhāgavata*—devout follower of Bhāgavata cult. From the clay tablet found at

1 Keith, *The Religion and Philosophy of the Veda and Upaniṣads*, pp. 117-194.

Besnagar, Dr. D.R. Bhandarkar concludes, 'Timitra (in the legend on the clay-tablet) appears to stand for the Greek name Demetrius, and it appears that the Greek was the Yajamāna who instituted the sacrifice.[2] The kings from the Eukratides family, who were presumably supported by the Śuṅgas, embraced Brahmanism and became worshippers of the *paurāṇic* deities like Krisṇa. The kings of the other Greek dynasty of Euthydemids became the followers of Buddhism,[3] In the famous Buddhist book *Milindapañha*—Questions of Milinda—the king Milinda is identified with Menander, and is described as a staunch Buddhist.[4] These are the recorded examples which prove that Indian religions both Vedic and non-Vedic, Brahmanism and Buddhism, influenced the foreigners so much so that there remained no foreigner after a few centuries. Not only the Greeks were so absorbed but the same is the story with the Śakas and the Kuṣāṇas who also were converted to one or the other Indian religion.

It is true that there is no example of Indians following the Hellenistic religion. One significant gift, that of iconography, however, in the field of religion, is said to have come from the Greeks. The representation of deities in human form is ascribed originally to the Greeks. As it stands, there is no evidence to the images of Gods in India before the Gandhāra Buddha, and it is likely that the Greek artists first gave this idea and inspiration to the Indians.

2 Banerjee, *Hellenism in Ancient India.*

3 M.V.D. Mohan observes, "(The Eukratides) can be designated as the *Paurāṇic* Greek house against the Buddhist Greek house of Menander", *The North West India*, p. 200.

4 Menander's conversion to Buddhism is doubted by some scholars, according to M.V.D. Mohan, *ibid*, pp. 207-209.

Sacrifice

The Greeks also performed sacrifices. Sacrifice was according to them a gift to the gods. The ritual at the sacrifice was a popular one and victims were offered in the sacrifice at the altar and later there were community feasts. Offerings were made in fire. The deity depended on mortals for nourishment. All this has its close parallel in the sacrifice practised by the Indians. As with the Indians so with the Greeks, developed an idea about moral weakness with an offering of an animal or a victim in a sacrifice. In both, there appeared an ethical awakening. The sacrifice without fire, of fruits, of earth, was more acceptable to a deity than that of an animal slaughter. The Delphic Oracle encouraged the idea that the simplest offering of the poor man with righteousness, was more acceptable than the lavish Hecatombs of the rich. A sentence from the lost play of Euripides runs, 'Know well that when one sacrifices to the gods in piety, one wins salvation, though the sacrifice be little'. Iamblichus observes that the sacrifice is not the gift to bribe God, but is a symbol of friendship between the mortal and the deity. All these thoughts have their exact counterparts in the *Upaniṣads* in general and in the *Bhagavadgītā* in particular.[5] In the times of the *Upaniṣads* and of the *Bhagavadgītā,* the sacrifice was no longer magic or a power with which priest could control God. There are general resemblances between the ideas of the older leading people of ancient civilisations.

5 *patraṁ puṣpaṁ phalaṁ toyaṁ*
yo me bhaktyā prayacchati /
tadahaṁ bhaktyupahṛtam
aśnāmi prayatātmanaḥ // —B.G. IX. 26

(whosoever offers to Me with love, a leaf, a flower, a fruit or even water, I appear in person before that disinterested devotee→

Philosophy

There are striking similarities between the philosophy of the Upaniṣads, of the Indian systems and that of the Greek thinkers. Garbe is inclined to see on the early Greek philosophy a considerable influence of India. Keith who is not willing to accept borrowing on either side, however, observes, 'The fact that the two countries were not separated by uncrossed deserts or seas is so far in favour of there having been exchange of ideas.[16] The similarities pointed out are as follow :

The view of Thale (625-547 B.C.) of the origin of everything in water has its counterpart in the *Bṛihadāraṇyaka-Upaniṣad.* His view is much later than the Vedic conception of the waters as the primeval form of existence. Anaximander (610-545 B.C.) stated that the primitive matter is indefinite and into this matter things pass. This can be compared to the matter, the *prakṛiti* of the *sāṁkhya.* Pythagoras (580 B.C.) in his theory clearly included the belief in transmigration, the idea that a series of births serves to purify the souls, and the view that the contemplative life is the highest form of existence and that man by living it most effectively strives to rid himself of the fetters of nature.

Schroeder and Hopkins and Garbe take this theory as

of purified intellect and delightfully partake of that article offered by him with love).

And also :

devān bhāvayatānena te deva bhāvayantu vaḥ |
parasparaṁ bhāvayantaḥ śreyaḥ paramavāpsyatha || —B.G. III, 11

(Foster the gods through this (sacrifice) and let the gods foster you. Thus offering one another disinterestedly you will attain the highest good).

6 *Religion and Philosophy of the Veda and the Upaniṣads*, p. 601.

a clear case of the influence of Indian speculation on Greek philosophy. It is argued that he must have borrowed his conception from India as there is no earlier trace of metapsychosis in Greece, and the principle must therefore have come from an external source. The prohibition to eat beans, the rule of ceremonial purity regarding the sun, the vow of silence like that taken by an Indian *Muni*, the Pythagorean theorem, the irrational root 2, the character of the religious philosophical brotherhood treated as similar to the Indian philosophical schools, and the mystic character of the doctrine are all regarded by Hopkins as valid evidence of the connection. Garbe argues that Pythagoras borrowed the notion of five elements from India. Xenophanes (570-470 B.C.) teaches that the universe is one, eternal and without change. It is likely that this is taken from the *Upaniṣads.* The doctrine of Herakleitos (535-475) of the constant flux of things can be compared with the movement of nature in the *sāṁkhya* system and to some extent in Buddhism. Similarly his belief in the innumerable annihilations and re-creations of the universe may be compared with the view of the *sāṁkhya,* of the repeated destruction and re-creation of the world. His conception of the exchange of fire for all things is to be met with in the *Kaṭhopaniṣad.*[7] Parmenides (515-450 B.C.) holds that reality is due to Universal Being, neither created nor to be destroyed, and omnipresent, and that everything which is subject to change is unreal, and that thinking and being are identical. The idea is found in the Upaniṣads.

Anaxagoras (500 B.C.) expressed the idea of Nous and it can be compared to the *puruṣa* of *Sāṁkhya.* Empedokles (495-435 B.C.) maintained the view that nothing can arise

7 R.D. Ranade, *A Constructive Survey of Upaniṣadic Philosophy*, p. 72.

from nothing. This view is similar to that of the *Sāṁkhyas*. The character of the teacher as a prophet, a magician, a believer in purification and a mystic is also comparable with certain types of the Indian sage. Empedokles believing in man's defilement claims to be a god, degraded to earth, but this is un-Indian. Empledokles, as a believer in transmigration, expressed dislike to flesh as food, but in India the belief according to Keith is not caused by the doctrine of transmigration.

The true relation between Greek and Indian philosophy can be seen clearly from the parallel which, quite legitimately has been drawn between the view of Empedokles and of Pakudha Kaccāyana, whose opinions are recorded in Buddhist texts. Kaccāyana asserted the existence of seven distinct elements whose interaction gave rise to the world of experience, namely, earth, air, fire, water, pleasure and pain as sources of attraction and repulsion, and the soul, *jīva*. The first six of these factors clearly correspond closely with the four elements of Empedokles, to which he added love and strife as sources of motion. Both agree in regarding their elements as unchanging, both recognize pores in organised bodies, both deny existence of void.

Plato (427-348 B.C.) expresses the unreality of the world of sense and experience and this bears a certain similarity to the conception of the Brahman alone as real. But Plato was the inheritor of the Sophists and Sokriates, and as a result his philosophy is something vitally distinct from any known to India. The metaphor of the chariot and its steeds in the *Phaidros* has an interesting parallel in the *Kaṭha*, but the details of the two are perfectly distinct, for Plato uses the conception to illustrate the struggle between the rational and the irrational elements in the soul. In the *Bṛihadāraṇyaka Upaniṣad* (i.4) we hear of procreation as the result of the

desire for reunion of the two halves of the primitive being, divided by Prajāpati into man and woman. Deussen compares this with the myth in the *sympoion* and argues that the view departs from truth merely in that it places in the past what lies in the future, for the being that brings together man and woman is the child that is to be born. Keith remarks that the two passes must certainly be independent, and afford an excellent instance of what parallelisms can adduce. Yet another instance is that of the five elements. As Deussen points out there are characteristic differences between the two lists which show a divergence of origin : the Greeks place fire between ether and air, the Indians air, which is really for the wind, *vāyu*—between ether and fire. Moreover there is a perfectly simple natural fact which in the series corresponds to the division of states of matter into the solid, the fluid, the fiery or gaseous, the elastic, and the imponderable, which could certainly not fail to win early attention.

The parallels have been shown between the *Sāṁkhya* and Plotinus (204-269 A.D.). The doctrine that the soul is in reality free from sorrow, which, on the contrary is essentially involved in the world of matter, is the development of a Platonic conception, and farther back is Orphic in origin. The conception of the soul as light is Aristotelian, and also it is an essential doctrine of the *Upaniṣads*, and it appears in the *Sāṁkhya* as well. The metaphor of the mirror applied to the explanation of consciousness of knowledge is traced by Garbe in the *Sāṁkhya*. The fact that the system of Plotinus is directed to freeing man from misery has its parallel in the *Sāṁkhya*. His reduction of all souls to one is, of course, opposed to the *Sāṁkhya* which believes in many souls. His belief in the turning away of the mind from things of the sense and the achievement of a condition

of union with the divine in ecstasy is parallel with the *pratibhā*, intuitive knowledge of the Yoga doctrine.

Weber suggested that there might possibly be some degree of dependence on India through Alexandria of the philosophy of neo-platonism in its doctrine of the Logos, as compared with the position of *vac*, speech, in the Brāhmaṇas. The conception of speech as the final power in the universe, which grows up naturally in the Brāhmaṇas, is contrasted by Weber with the sudden as well as unexpected appearance of the Logos in Greek philosophy.[8] The query of Hesiod (fifth century B.C.) at the beginning of his work corresponds almost exactly to the query at the beginning of the *Śvetā-śvatara-Upaniṣad*. The theory of Hesiod about the earth as the basis of the cosmos is echoed in the *Muṇḍaka Upaniṣad*. The conceptions of not-Being and Being in the theories of Gorgias and Parmenides have their parallels in the *Taittirīya* and the *Chāndogya Upaniṣads*. The conception of space as the fifth element recognised in the theory of Phoilaos has its parallel[9] in the *Taittirīya Upaniṣad*.

Attempts have also been made to discover Greek inspiration for some Indian theories : The Indian syllogism appears to S.C. Vidyabhusana as influenced by a Greek model. He considers the antiquity of the syllogism propounded by Aristotle and its close connection with the Indian logic and concludes that the latter was greatly influenced by, if not based on, the former. He observes, 'Aristotle's works reached India, through Syria, Bactria and Taxila. Aristotle's *Art of Rhetoric* reached India, during 175 B.C. to 30 B.C., when the Greeks occupied the north

8 Keith, *The Religion and Philosophy of the Veda und Upaniṣads*, p. 610.

9 For adverse criticism see *ibid*, pp. 600-613.

western parts of India. From this book the syllogism of five members as illustrated in the Caraka-saṁhitā, seems to have been derived. During the period of 30 B.C. to 450 B.C. Aristotle's two books, *Posterior Analytics* and *De Interpretations*, were known to Indians. From these books Akṣapāda, Nāgārjuna, Vasubandhu and Diṅnāga seem to have borrowed the definition of some of the most important logical terms and the explanation of the various structures of the syllogism. The two chief among the logicians, Akṣapāda and Diṅnāga were inhabitants of Kathiawar and Conjeeveram, which were the principal sea-ports on the eastern and western coasts of India, frequented by merchants and travellers from Alexandria. It is probable that the prior Analytics was widely read in those days, either in original or in vernacular translation. The Aristotelian wotk, which seems to have suggested to the Indian logicians Dharmakīrti and Uddyotakara the idea of a universal proposition, the basis of a true syllogism, was evidently the *Posterior Analytics*.[10]

As regards the atomic theory of the *Vaiśeṣika*, Keith argues that it owes its inspiration to Greek thought and that it arose possibly at a period when India was in contact with the Western world, where the doctrine was widespread. Radhakrishnan, hereupon, observes, 'Apart from the general conception of the atom as the imperceptible unit, there is practically nothing in common between the Greek and Indian versions of the atomic theory. According to Democritus, atoms have only quantitative differences and not qualitative ones. He believed in an indefinite multitude of atoms, destitude of quality and divisibility but differing in figure, size, weight, position and arrangement. For Kaṇāda the atoms are different in kind each possessing its own distinct indivi-

10 *Influence of Aristotle on the development of the syllogism in Indian logic*, JRAS, 1918, pp. 436-488.

duality (*viśeṣa*). As a result, qualitative differences of objects are reduced to quantitative ones with the Greek thinker, while it is otherwise with the *Vaiśeṣika*.[6] It follows that the Indian thinker does not accept the Greek view that secondary qualities are not inherent in the atoms. For Democritus and Epicurus, the atoms are by nature in motion while for Kaṇāda they are primarily at rest. Another fundamental difference between the two lies in the fact that while Democritus believed it possible for atoms to constitute souls, the *Vaiśeṣikas* distinguish souls from atoms and regard them as co-eternal existences. The Greek atomists developed a mechanical view of the universe, God being banished from the world. The atoms, infinite in number and diversified in form, fall through boundless space, and in so doing dash against each other, since the larger ones are moved more rapidly than the smaller. Thus falling into votices they form aggregates and worlds. The changes in the motions of the atoms are said to occur in an incalculable way. Though the early *Vaiśeṣikas* did not openly admit the hypothesis of God, they made the principle of the moral law or *dharma* (*adṛṣṭa*) centralt to their whole system. The atomic view of the *Vaiśeṣika* is thus coloured by a spiritual tendency which is lacking in the Greek counterpart of it. There are thus distinctive feature of the *Vaiśeṣika* atomism which cannot be due to Greek influence.[11]

All these parallels are no doubt striking. Scholars have devoted their attention to find out explanations for the occurrence of these similarities. In this context, three possibilities suggest themselves : (i) Borrowing and influence, (ii) Common origin of the two, and (iii) Independent parallel development of the two. Both these countries have had considerable development of their civilizations independently before they came into mutual contact. Similarities that

11 Radhakrishnan, *Indian Philosophy*, vol. II, p. 202.

belong to this period naturally are to be explained by the theory of independent parallels. In different climates and in different situations man has many times thought in an almost identical manner. It is to be remembered in this context that these two thoughts have important differences as well. It is quite probable that the Indians and the Greeks have certain common ideas both being Indo-European people. Thus for instance, in the matter of their polytheism, sacrifice and the like this Common Origin of the two peoples is likely to have played some important part. After the contact of the two peoples there must have been a mutual give and take and the Indians must have been benefitted on account of this contact.

There is sufficient evidence that Indian philosophers learned of Greek systems from Greek interpreters and that Greeks headed the advice and even became pupils of Indian philosophers. Mandanes, the Indian sage, tells Onesikritos, 'I command the king, because though he governs so vast an empire, he is yet desirous of acquiring wisdom, for he is the only philosopher in arms that I ever saw' (*Strabo*, XV. 1. 64). According to Plutarch, Alexander sent Onesikritos, a philosopher who belonged to the school of Diogenes the Cynic, to the Indian gymnosophists, Kalanos and Dandamis. Kalanos ordered the Greek to strip off his clothes and listen to him naked or he would not converse with him. When Dandamis was told about Socrates, Pythagoras and Diogenes, 'he said they appeared to him to have been men of genius' but nevertheless criticised them for subjecting their lives too much to the requirements of their laws (as against following ascetic practices). Taxiles persuaded Kalanos to visit Alexander, which he did, and warned Alexander by a concrete analogy that he should control his empire from its centre, and not wander away to its distant extremite'. Arrian (VII. i. 5. iii)

reports that the Indian sages mocked Alexander for disturbing the peace of the world, and that king though he was, on his death he would have no more earth than would cover his bones. Alexander invited Dandamis to come and live with him but Dandamis replied that he desired nothing it was in Alexander's power to give nor did he fear being dispossessed.[12]

This is only a report and not a historical proof. Yet, one would be justified in saying that there is nothing to prevent their deserving our belief. The contact with the Greeks would have helped Indians to make some advance in their sciences and arts, while the Greeks themselves are likely to have been influenced in matters religious and philosophical.

12 Jairazbhoy, *Foreign Influences in Ancient India*, pp. 84-85.

EPILOGUE

IN THE FOREGOING pages an attempt has been made to discover the cultural communications between ancient India and Greece. The ancient Indians and the Greeks were the most highly cultured and gifted peoples in the early world. They had developed their own civilizations independently undoubtedly, and had not been slow to appreciate and assimilate whatever good they saw and came across. In the first place, the Greeks and the Indians had a common origin before their separation, and secondly they came to a direct contact with each other in the historical period for several centuries (326 B.C. to 400 A.D.). These two civilizations came from the common Indo-European stock, for a considerable time developed independently and came into contact in 326 B.C. with the advent of Alexander the Great.

During this period India had developed considerable religious and philosophical literature, different sciences like astronomy, medicine and mathematics, though out of a religious necessity. The rise of Buddhism and Jainism in the sixth century B.C. contributed to the richness and variety of the Indian culture. The *sūtra* period was over and the classical period had almost begun. Exactly at this crucial juncture the Greeks who had their own literature, arts and philosophy, arrived. Athens was the centre for all their cultural activities having in it the Greek theatre, philosophers like Socrates, Plato, Thales and the different architectural and sculptural monuments.

Alexander in the wake of his invasion left the few kingdoms which though Bactrian could be called Indo-Greek

states. The two dynasties of Euthedemon and Eukratides had their friendly relations with powerful monarchs of the north, the Mauryas and the Śuṅgas, and were soon completely Indianised. The Greek monarchs and their nobility embraced Bhāgavatism and Buddhism. The Greeks who settled in India were through inter-marriages completely assimilated in the Indian society. The Indian rulers accepted in the matter of administration the new ideas in military affairs, coinage, etc., from the Greeks. The Greeks also gave inspiration to the Indian artists, who carved the statues of the Buddha to herald the Gandhāra school of sculptors. The Greeks also perhaps are responsible for the Hallīsaka dance, which the Indians developed into the celebrated *Rāsa* dance. In the matter of the sciences, the Indians were always alive to anything and everything new, and accepted from the Greeks the terms in astrology like *Jāmitra, Apoklima, Lipta*, etc. In the matter of medicine also there was mutual give and take between the Greeks and the Indians as the Greeks took from India the use of medicinal herbs and the Indians learnt surgery from the Greeks. In Literature certain motifs have been exchanged. In the field of religion and philosophy there is much that has to be explained on account of their common origin and direct contact.

With all these similarities these peoples, whose thoughts are being discussed here, were essentially different in temparament and outlook. To a large extent the Greeks were realist, pure materialist and saw beauty in human form and human strength. They believed in gods to be jealous of men and destroying them. Hence the appearance of the great Greek tragedy, a form which India never developed. With their philosophy of Delight and firm faith in the law of *karma*, the Indians could not think of any opposition

between the gods and the human being. This outlook has been happily described by Mathew Arnold :

She let the legions thunder pass
And plunged in Thought again.

Material happenings in the world were of little or no importance to them. Not that they were blind to the misery of life but they always felt like being superior to these miseries. The Greek fought physical war for his country while the Indian carried on internal struggle for saving his soul. Empires were built up and India also can boast of a Candragupta Maurya, of a Samudragupta, of a Harṣavardhana and an Aśoka. But these were not Alexanders. They were all striving to attain the ideal of a *dharmavijayi Nṛipa,* a king who conquers according to principles of *dharma.*

In spite of all these similarities and differences, there remains the fact of the cultural communications between the Greeks and the Indians as a result of which both were benefitted. It does not serve any cause of history to explain away or deny these communications altogether. The two tendencies prevalent among students of this subject were aptly described by the President of the first Oriental Conference when he observes, "The Indian's tendency may be towards rejecting foreign influences on the occurrences in the history. On the other hand, the European scholars' tendency is to trace Greek, Roman or Christian influence at work in the evolution of new points and to modernise the Indian historical and literary events". History is pursuit of truth, which only unbiased minds can grasp.

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